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WITH
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BY
WILLIAM HUGHES, F.R.G.S.,
LATE PROFESSOR OF GEOGRAPHY IN KING'S COLLEGE, LONDON.

NEW EDITION,

REVISED BY

J. FRANCON WILLIAMS, F.R.G.S.,
AUTHOR OF "THE GEOGRAPHY OF THE OCEANS."



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* * This Atlas is specially designed to accompany Professor Hughes's
"Class-Book of Modern Geography."

GEORGE PHILIP & SON, PUBLISHERS, LONDON AND LIVERPOOL.

PREFACE.

THE aim of the present volume is sufficiently indicated by its title, and prefatory remark is almost superfluous. The Author believes it calculated to occupy a place which is altogether distinct from that taken by any of his previous works on the subject.

The "Examination Questions" appended to each section of the book constitute, in the Author's estimate, one of the most valuable of its features. They are mainly designed, as the teacher will at once perceive, for oral use; and have been framed under the conviction that frequent oral examination—pursued with constant reference to Maps drawn upon a large scale—is the soundest test of a learner's advancement in geographical knowledge. But the greater number of them are equally adapted for the purposes of written examination.

The use which the Author would recommend to be made of these questions would be this:—That after *each* lesson gone through by the teacher, and professedly learnt by the pupils, the real amount of knowledge gained by the learner should be tested by oral examination. Whether all of the questions that are here given should be proposed for answer, or only a selection of them, must depend upon special circumstances—of time and various appliances in aid of tuition—which differ in the case of one school from that of another, and of which the individual teacher is the most competent judge. But the use of the Map is indispensable, whatever the limits to which either lesson or

examination may be restricted. In addition, the Author would, at not unfrequent intervals, apply the test of written examination. The added labour imposed upon the teacher, in the task of looking through the answers, will be amply recompensed by the certain test of progress thus afforded. The deficiencies of the one method of examination will be corrected by the other, and, when both are avowedly adopted, even the least diligent learner can hardly fail to feel the stimulus to some amount of individual exertion.

NEW AND REVISED EDITION.

NOTE BY THE PUBLISHERS.

In the present edition the information throughout has been thoroughly revised, so as to embrace every recent discovery and political change of importance. Much additional information has been inserted, more especially in the sections treating of the British Islands and Colonies, and those foreign countries which recent events have brought into prominent notice. The statistics have, in each case, been corrected to the latest possible date. The population of the counties and towns of Great Britain and Ireland has been taken from the census returns of 1881.

LONDON, *July* 1881.

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CLASS-BOOK

OF

MODERN GEOGRAPHY.

INTRODUCTION.

GEOGRAPHY (Gr. *ge*, "the earth," and *grapho*, "I describe") is a description of the earth.

In other words, Geography describes the earth not only as a whole, but also the lands and seas which constitute its surface, with their respective climates, productions, and inhabitants.

Such a description involves—

1. An account of the earth as a whole, its figure, magnitude, and motions.
2. An account of the natural features of the earth's surface, and of the climates, minerals, plants, and animals which belong to the different regions of the globe.
3. A description of the several countries into which the earth is divided, with the condition and pursuits of their inhabitants, and the localities of the principal towns in each.

The *first* of these three divisions is generally called Mathematical or Astronomical Geography, the *second* is distinguished as Physical Geography, and the *third* is known as Political Geography.

1. **MATHEMATICAL GEOGRAPHY** is virtually included in the science of astronomy, and is here treated of only in so far as it relates to the figure, magnitude, and motions of the earth, and the determination of the various imaginary "points" and "circles," which are absolutely necessary in order to determine the *exact positions* of places.

2. **PHYSICAL GEOGRAPHY** treats of the *natural* features of the earth, its different climates, productions, and capabilities, and is chiefly valuable as the natural introduction to

3. **POLITICAL GEOGRAPHY**, which treats of the *political* divisions of the earth, and the condition and pursuits of mankind.

The two latter are thus intimately connected, and the geography of any part of the earth may be most profitably studied by carefully noticing the connection between them. A very brief reflection suffices to show that such a connection exists, and that it is attended by very important results.

The people who live in a *hot country* are differently circumstanced from those who dwell in a cold country, and their modes of life will naturally be different in many respects. They will be led to adopt a

different kind of clothing, and their ordinary kinds of food—their houses, their outdoor labours and amusements, with many other things—will be different in the one case from the other. In like manner, the habits, manners, and ideas of people who inhabit a *mountainous and rugged country* will present great differences from those which belong to the inhabitants of a level plain. So also, a people dwelling on *the borders of the sea* will have habits and occupations differing in many ways from those of people who inhabit an inland region; they will (to take one example only) be led to build ships, and thus to engage in maritime intercourse with other nations, which the inhabitants of an inland country can never do.

We shall see, as we proceed with our geography, numerous instances of this close connection between the natural condition and productions of different regions and the social state of their inhabitants.

EXAMINATION QUESTIONS.

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. What is the meaning of the term "Geography"? 2. What does "a description of the earth" involve? 3. How is geography generally divided? 4. What subjects are included under <ol style="list-style-type: none"> (1) Mathematical geography; (2) Physical geography; (3) Political geography? | <ol style="list-style-type: none"> 5. What connection is there between the physical and political geography of a country? 6. Give an example of the way in which the physical geography of a country affects the conditions and pursuits of its inhabitants. |
|--|--|

MATHEMATICAL GEOGRAPHY.

1. THE EARTH is very nearly a globe in shape—that is, it is round (like a ball or an orange).

(a.) That the earth is *round* is proved by

1. The circumnavigation of the globe.
2. The shadow of the earth when the moon is eclipsed is always "round."
3. The topmasts of a vessel approaching the shore are always seen *first*; were the surface of the sea perfectly *flat*, the largest part of a vessel, the hull, would be seen *first*, and the small topmasts *last*.
4. The hull of a vessel leaving the land disappears first, the topmasts last, which would not be the case if the surface of the sea were not "curved."
5. The earth is a planet. All the other planets are *round*. The earth, therefore, is most probably "round" also.

(b.) The *rotundity* of the earth has not only been demonstrated as above, but has also been *proved by actual measurements*, from which astronomers have calculated its *exact* size and shape.

We thus know that the earth is not *perfectly round*, i.e., a sphere,¹ but is *slightly compressed* at the poles, so that its *exact shape* is that of an "oblate spheroid."

¹ A sphere (Gr. *sphaira*, a ball) is a perfectly round body. A slightly compressed body, like an orange, forms an oblate spheroid; an elongated one, like a lemon, is a prolate spheroid.

2. The earth measures about 25,000 miles round, and a straight line supposed to pass through its centre would be about 8000 miles long.¹

The former of these measurements is called the *Circumference*² of the earth, the latter its *Diameter*.³

3. The earth is constantly turning round, in a direction from west to east, upon an imaginary line (called its *Axis*⁴), which passes through its centre, and which therefore forms one of its diameters. This motion is the cause of day and night, and is called its *Daily* or *Diurnal*⁵ Motion, because the earth rotates on its axis once a day.

The earth's *Axis* is the imaginary line upon which it turns. Its extremities are called the *Poles* of the earth. One of them is the North Pole, the other the South Pole.

4. The earth also revolves round the sun once a year. This motion causes the four seasons, Spring, Summer, Autumn, and Winter, and is called its *Annual Motion*.

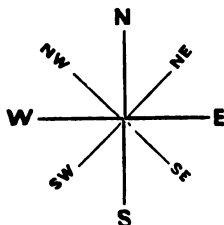
The exact time of the earth's rotation on its axis is $23^h 56^m 4^s$.

The exact time of the earth's revolution round the sun is $365^d 6^h 9^m 10^s$.

5. The *Equator*⁶ is a circle drawn round the earth midway between the poles—that is, at exactly the same distance from each pole.

The equator divides the globe into two halves or *Hemispheres*—a Northern Hemisphere and a Southern Hemisphere. The northern hemisphere is that half of the globe which is between the equator and the north pole, and the southern hemisphere is the half that is between the equator and the south pole.

6. North, South, East, and West are terms used to express the relative positions of places to one another. They are the four *Cardinal*⁷ Points of the compass—an instrument used to determine the respective bearings of places.



There are altogether thirty-two points of the compass—twenty-eight of the number being intermediate between the four cardinal points. The point lying midway between north and east is called *North-east*; that midway between north and west is *North-west*. In like manner, the points lying midway between the east and west and the south points are called *South-east* and *South-west*.

These points are sometimes called the four Collateral Points. The *Cardinal Points* are generally abbreviated thus: N. S. E. W. The *Collateral Points* thus: N.E., N.W., S.E., S.W.

¹ More exactly, the dimensions of the earth are as follow:—

Equatorial diameter, 7926 miles.

Polar diameter, 7899 miles.

Mean diameter, 7912½ miles.

Circumference, 24,900 miles.

Area of surface, 196,900,000 square miles.

Solid contents nearly 260,000,000,000 cubic miles.

Weight of the globe about 6,760,716 millions of tons.

² Circumference, Lat. *circum*, round; *fero*, I carry.

³ Diameter, Gr. *dia*, through; *metron*, a measure.

⁴ Axis, Lat. *axis*, an axle-tree.

⁵ Diurnal, Lat. *diurnus*, of or belonging to a day.

⁶ Equator, Lat. *æquo*, I make even or equal.

⁷ Cardinal, Lat. *cardinalis*, chief, i.e., the chief points of the horizon.

7. A **Meridian**¹ is a line drawn round the earth in the exact direction of north and south—that is, passing through the poles, and crossing the equator at right angles.

Such a line may be supposed to pass through any given place on the earth's surface (and may, of course, be actually drawn upon the surface of the artificial globe); it is then called the Meridian of that place. Thus, a line drawn through London in the exact direction of north and south is called the Meridian of London.

8. The **Positions of Places** on the earth's surface are indicated by means of latitude and longitude.²

Latitude is distance in the direction of north and south.

Longitude is distance in the direction of east and west.

The amount either of latitude or longitude is expressed in degrees.

Every circle, whether great or small, is supposed to be divided into 360 equal parts or *Degrees*. A quarter of a circle (or *quadrant*) contains, therefore, 90 degrees.

9. **Latitude** is distance measured, in degrees, from the equator towards either pole; and the greatest latitude which a place can have is 90 degrees—that is, the extreme distance of either pole from the line of the equator.

All places situated between the equator and the north pole are said to be in *North Latitude*; all places that lie between the equator and the south pole are in *South Latitude*.

10. **Longitude** is distance to the east or west of any given meridian, and is measured halfway round the globe—that is, 180 degrees upon each side of any meridian—and is called East Longitude or West Longitude, according as it is to the east or to the west of the meridian that is used.

In England we use the meridian supposed to pass through Greenwich (near London), where our National Observatory is situated. Hence we say that a place is so many degrees longitude east of Greenwich, or west of Greenwich.

11. Every **Degree** is divided into sixty equal parts called *Minutes*, and every minute is divided into sixty equal parts or *Seconds*.

The following signs are used to express degrees, minutes, and seconds—"°". If it is necessary to express distances (either of latitude or longitude) which are less than a degree, we say that a place is in so many degrees, so many minutes, and so many seconds, using these signs. Thus, 24° 16' 8", means twenty-four degrees, sixteen minutes, and eight seconds; just in the same way that, in order to express an amount of money, we might say £24, 16s. 8d., that is, twenty-four pounds, sixteen shillings, and eight pence.

12. **Parallels of Latitude** are circles drawn round the globe in a direction parallel to the equator.

Parallels are usually drawn upon artificial globes and maps at every ten (or sometimes every five) degrees apart. They serve to show, in a general way, the latitudes of various places. Places that are on (or near) the same parallel have, of course, the same (or nearly the same) latitude.

¹ Meridian, Lat. *meridies*, mid-day. Places on the same meridian have mid-day or noon at exactly the same time.

² Latitude, Lat. *latitudo*, breadth; longitude, Lat. *longitudo*, length. These terms

were applied by the ancients, who thought that the earth extended farther east and west than north and south. Hence they supposed the length of the earth was from east to west, and the breadth from north to south.

13. **Meridian Lines**—that is, lines in the exact direction of north and south—are also generally drawn upon globes and maps at distances either of five or ten degrees apart, and serve to show the longitudes of places.

Places that are on (or near) the same meridian have the same (or nearly the same) longitude.

14. The **Tropics**¹ are circles drawn round the globe in a direction parallel to the equator, and at a distance of $23\frac{1}{2}^{\circ}$ from that line.

That drawn at $23\frac{1}{2}^{\circ}$ to the north of the equator is called the *Tropic of Cancer*; the similar circle drawn at $23\frac{1}{2}^{\circ}$ south of the equator is called the *Tropic of Capricorn*. These lines mark the farther distances, on either side of the equator, within which the sun is vertical.

15. The two **Polar Circles** are drawn round the globe in a direction parallel to the equator, and at distances of $23\frac{1}{2}^{\circ}$ from either pole.

The circle drawn at $23\frac{1}{2}^{\circ}$ from the north pole is distinguished as the *Arctic*² Circle. That drawn at $23\frac{1}{2}^{\circ}$ from the south pole is called the *Antarctic*³ Circle. These circles mark the limits (from either pole) within which the sun remains wholly above the horizon for a term of more than twenty-four hours at one season of the year, or does not rise for a term of more than twenty-four hours at the opposite period of the year.

16. **Zones**.³—The tropics and polar circles serve to divide the surface of the earth into five *Zones*—one torrid⁴ zone, two temperate⁵ zones, and two frigid⁶ zones.

1. The **Torrid Zone** extends on either side of the equator, and is bounded on the north by the Tropic of Cancer, and on the south by the Tropic of Capricorn.

2. The **North Temperate Zone** is the space between the Tropic of Cancer and the Arctic Circle.

3. The **South Temperate Zone** lies between the Tropic of Capricorn and the Antarctic Circle.

4. The **North Frigid Zone** embraces the space within the Arctic Circle surrounding the north pole.

5. The **South Frigid Zone** comprises the space within the Antarctic Circle surrounding the south pole.

The *Torrid Zone* is the hottest part of the world, because there the sun is vertical, or directly over head. The *Frigid Zones* are the coldest parts of the globe, for there the sun is, during a portion of the year, wholly absent—not rising above the horizon for weeks (or months) in continuous succession. The *Temperate Zones* (as the word “temperate” implies) are neither so hot as the torrid zone, nor so cold as the frigid zones.

¹ Greek, *trepo*, I turn. Because the sun in its apparent annual path through the heavens, turns back towards the equator when it has reached a point vertically over the line of the tropic, or $23\frac{1}{2}^{\circ}$ on either side of the equator.

² Arctic, Antarctic, Gr. *arktos*, a bear, from the constellation of the Great Bear which overlies the arctic circle. The term arctic is also synonymous with northern or the north.

In the term *antarctic*, the prefix *anti* means opposite to or over against, i.e., opposite to the arctic circle.

³ Zones, Gr. *zone*, a belt or girdle.

⁴ Torrid, Lat. *torridus*, parched or scorched.

⁵ Temperate, Lat. *tempero*, I moderate—the climate of this zone being neither extremely hot nor intensely cold.

⁶ Frigid, Lat. *frigidus*, cold; the frigid zones are intensely cold.

The extent of the various zones is as follows:—

1. The *Torrid Zone*, $23^{\circ} 28'$ north, and $23^{\circ} 28'$ south, of the equator; total breadth, $46^{\circ} 56'$.
2. The *North and South Temperate Zones*, from $23^{\circ} 28'$ to $66^{\circ} 32'$ north and south latitude respectively, are each $43^{\circ} 4'$ broad.
3. The *North and South Frigid Zones* have each a radius of $23^{\circ} 28'$ from the north and south poles respectively.
4. Of a total area of 197,000,000 square miles, the *torrid zone* embraces 78,406,000; the *temperate zones*, each 51,121,500; and the *frigid zones*, each 8,175,500.

EXAMINATION QUESTIONS.

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. What is the shape of the earth? 2. How can we prove that the earth is round? 3. What is the <i>exact</i> shape of the earth? 4. What are its dimensions? 5. Does the earth move? How? 6. What phenomena are caused by the (a) annual, and (b) diurnal, motions of the earth? 7. What is the <i>axis</i> of the earth, and what are its ends called? 8. What is the <i>equator</i>, and how does it divide the globe? 9. What is meant by the <i>poles</i> of the compass? How many of them are there? | <p>How are the <i>cardinal</i> and <i>collateral points</i> named?</p> <ol style="list-style-type: none"> 10. What is a <i>meridian</i>? 11. How are the <i>positions of places</i> on the earth's surface indicated? 12. What is (a) <i>latitude</i>? (b) <i>longitude</i>? 13. What purpose do (a) <i>parallels</i> and (b) <i>meridian lines</i> serve? 14. What are the <i>tropics</i>, and what do they indicate? 15. What are the <i>polar circles</i>? 16. How many <i>zones</i> are there? Name them. 17. Which is the <i>hottest</i> zone? Which is the <i>coldest</i>? |
|--|--|

PHYSICAL GEOGRAPHY.

THE surface of the earth is divided into land and water.

1. LAND occupies little more than one-fourth, and
 2. WATER nearly three-fourths of the whole.
- The *total area* of the globe is estimated at 197,000,000 square miles, of which *Land* occupies 51,500,000 square miles, and *Water* 145,500,000 square miles.

I. LAND.

The land occupies little more than one-fourth of the surface of the globe, and consists of two immense *continuous* masses and a vast number of smaller *separate* masses.

The two *continuous* land-masses are separated by the Atlantic and Pacific Oceans, and are called the *Eastern* and *Western Continents* respectively.

1. The *Eastern Continent* is divided by the chain of the Ural Mountains and the Mediterranean Sea into three great divisions: *Europe*, *Asia*, and *Africa*.
2. The *Western Continent* is divided by the Caribbean Sea and the Gulf of Mexico into two main portions, called *North* and *South America*.

3. To the south-east of the Eastern Continent is another vast mass of land entirely surrounded by the sea, called *Australia*.

Each of the great divisions of the two main land masses (and the island of Australia) is also called a Continent, so that

There are six continents: Europe, Asia, Africa, North America, South America, and Australia.¹

Europe, Asia, and Africa together form the Eastern Continent, or the *Old World*, so called because they were known to the nations of antiquity. America, often called the *New World*, was not discovered until a comparatively modern period—towards the close of the 15th century.

1. **EUROPE** is the north-western portion of the Old World, from the rest of which it is separated by the Mediterranean Sea and the Ural Mountains.

2. **ASIA** is the eastern, and by far the largest, portion of the Old World.

Europe and Asia form in reality one continuous and connected mass of land, and are often spoken of together under the name of *Eurasia*.

3. **AFRICA** is the southern portion of the Old World, and is separated from Europe by the Mediterranean Sea, but united to Asia by the Isthmus of Suez.

4. **AMERICA**, though sometimes spoken of as *one* continent, is distinctly divided into two great masses, united only by the narrow Isthmus of Panama, and distinguished as *North America* and *South America*.

5. **AUSTRALIA** is an immense island lying to the south-east of Asia, from which it is separated by the Malay Archipelago.

Australia, New Zealand, and the numerous islands and archipelagos in the Pacific are sometimes classed together under the general name of *Oceania*.

Of the above divisions of the land, Europe, Asia, Africa, and Australia are in the *Eastern Hemisphere*, and North and South America in the *Western Hemisphere*. The whole of North America, Europe, Asia, a small part of South America, and the greater portion of Africa, are north of the equator, *i.e.*, in the *Northern Hemisphere*. The remaining portions of South America and Africa and the whole of Australia are south of the equator, *i.e.*, in the *Southern Hemisphere*.

1. The Eastern Hemisphere contains twice as much land as the *western*.

2. The Northern Hemisphere contains three times as much land as the *southern*.

3. The *Continental Hemisphere*, that is, a hemisphere in which England occupies the centre, includes the greater part of the *land*, while

4. The *Oceanic Hemisphere* is nearly all covered with *water*, the only considerable portions of land being Australia, New Guinea, &c., and the southern part of South America.²

¹ The areas of the continents, in round numbers, are as follow:—

	Sq. Miles.
Europe, ...	3,700,000
Asia, ...	17,500,000
Africa, ...	12,000,000
North America, ...	8,600,000
South America, ...	7,000,000
Australia, ...	3,000,000

² The amount of land in the various hemispheres is as follows:—

	Sq. Miles.
Northern Hemisphere, ...	38,000,000
Southern Hemisphere, ...	13,500,000
Eastern Hemisphere, ...	35,500,000
Western Hemisphere, ...	16,000,000
Continental Hemisphere, ...	43,500,000
Oceanic Hemisphere, ...	8,000,000

* * * For full particulars relative to the distribution of land and water, the student is referred to the *Geography of the Oceans* (G. Philip & Son).

The following terms are used to denote various portions of the land :—

1. **Continent.**¹—The largest divisions of land are called *Continents*.

There are, as we have said, *six continents* : *Europe, Asia, Africa, North and South America, and Australia*.

2. **Island.**²—A portion of land surrounded by water is called an *Island*. *Borneo, Madagascar, Iceland, Great Britain*—any one of which may be readily found upon an artificial globe, or on a map of the world—are examples of islands.

Several *small* islands lying close to each other form a **Group**. Several *large* islands or island-groups near each other form an **Archipelago**. An *Islet* is a small island in the *sea*. An *Eyot* is an island in the channel of a river.

3. **Peninsula.**³—A portion of land *nearly* surrounded by water is called a *Peninsula*. Italy, Greece, Florida, Arabia, are examples of peninsulas. Sweden and Norway (together) also present an example of a peninsula ; so, too, do Spain and Portugal.

4. **Isthmus.**⁴—A narrow neck of land which unites any two larger portions is called an *Isthmus*. As, for example, the Isthmus of Suez, which unites Asia and Africa ; the Isthmus of Panama, which joins North and South America ; and the Isthmus of Corinth, which joins the southern part of Greece (the Morea) to the mainland.

Of the two most important isthmuses of the world, those of Suez and Panama, the former is already pierced by a canal large and deep enough to enable the largest vessels to pass from the Mediterranean into the Red Sea, and the projected "inter-oceanic canal" across Panama, will, when completed, enable vessels to proceed from the Atlantic directly into the Pacific, thus avoiding the dangerous and tedious voyage round Cape Horn.

5. **Coast.**⁵—The line where the land and water meet is called the *Coast*.

The term **Coast**⁶ is generally used when *land* is spoken of, and **Shore**⁷ when the *sea* is spoken of.

The term **Sea-board** is synonymous with "shore," and means the *border* or *margin* of the land adjoining the sea.

The **Beach** is that part of the land between the high and low water-marks.

¹ Continent, Lat. *con*, together ; and *teneo*, I hold.

² Island, O.-Fr. *igland*, i.e., eye-land ; Lat. *insula*.

³ Peninsula, Lat. *pene*, almost ; and *insula*, an island.

⁴ Greek, *isthmos*, the name given to the narrow neck of land which joined the Peloponnesus (or Morea) to the mainland of Greece, near the city of Corinth.

⁵ (a) The *lengths of the coast-line* of the continents, and (b) the number of *square miles of surface to each mile of coast*, are as follow :—

	(a)	(b)
Europe, . . .	19,500	190
Asia, . . .	35,000	500
Africa, . . .	16,000	750

	(a)	(b)
North America, . . .	24,500	350
South America, . . .	14,500	482
Australia, . . .	10,000	300

In proportion to its *area* Europe has little more than two and a half times as much coast-line as Asia, very nearly four times as much as Africa, nearly twice as much as North America, two and a half times as much as South America, and one and half times as much as Australia. Taking Europe as 1, the extent of coast-line in proportion to area will be as follows :—Europe, 1 ; Asia, 2.6 ; Africa, 3.9 ; North America, 1.8 ; South America, 2.5 ; Australia, 1.5.

⁶ Coast, Lat. *costa*, a side.

⁷ Shore, A.-S. *scearan*, to divide.

6. **Cape.**¹—A point of land which advances beyond the general coast-line, so as to project or jut into the water, is called a *Cape* or *Point*.

The terms Promontory, Head, or Headland, are often applied to capes—the first more especially to high points of land. Cape Comorin (the southern point of India), Cape Horn (at the south of the New World), the Cape of Good Hope (in the south of Africa), and Flamborough Head (on the east coast of England), are examples of capes.

Of the *local names* of capes we may notice the terms *Ness*, *Naze*, *Bill*, used in England, &c.; *Mull*, in Scotland; *Foreland*, in England and Ireland; *Bec*, in France, &c.

7. **Plain.**²—A portion of land not much raised above the sea, and with a generally level surface, is called a *Plain* or *Lowland*. European Russia, Lombardy (in North Italy), and the valley of the Mississippi (in North America), are examples of lowland-plains.

Some of the great plains are distinguished by special names, such as

The *Landes*, or sandy plains of south-west France.

The *Steppes* of Russia and Central Asia, open and treeless plains.

The *Tundras* of Siberia, low swampy plains sloping into the Arctic Ocean.

The *Savannahs* and *Prairies* of North America.

The *Llanos* or grass-flats periodically inundated by the Orinoco.

The *Selvas* or forest-plains of the Amazon valley.

The *Pampas* of La Plata, "broad thistly flats and grassy pastures."

8. **Table-land.**—A tract of land which rises to a considerable height (as a thousand feet or upwards) above the level of the sea, is called a *Table-land* or *Plateau*.³ The country called Tibet (in Central Asia) is an example of a plateau or table-land; so also is the interior of Spain, in the European quarter of the globe.

9. **Mountain.**—A smaller portion of land rising above the adjoining plain forms a *Hill* or *Mountain*.⁴ When many such elevations occur close beside one another, they form a *Mountain-Group*, or if in succession in one line, a *Mountain-Range* or *Chain*. The Grampian Hills (in Scotland), the mountains called the Alps (between Italy and Switzerland), the Himalaya Mountains (in Asia), are examples. The heights of places are generally expressed in feet, and are calculated from the level of the sea—that is, from the average level of the waters which cover so large a portion of the earth's surface. Thus, we say of a mountain or a table-land that it is so many thousand feet above the level of the sea.

Small hills are variously named. The general term is *Hillocks*, but if rounded they are called *Knolls*, if of chalk formation and rounded, *Downs*. Sand-hills on the sea-shore are called *Dunes*. High prominent peaks are called *Tors*, or if formerly used as fire-signal stations, *Beacons*.

The terms "range" and "chain" are often used synonymously, but a *Mountain-range* is a succession of connected elevations in the same line, as the *Pennine Range*; while

A *Mountain-chain* is a series of mountain-ranges generally parallel to one another, as the *Andes*.

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A **Mountain-group** consists of a number of irregularly-arranged elevations near each other, as the *Cumbrian Group*.

A **Mountain-system** is a series of ranges or groups of mountains having the same general direction or position, as the *Alpine system*.

A narrow opening between two adjoining mountains is called a **Mountain-pass**, and also, in some cases, a **Defile** or **Ravine**. The passes over mountain-chains lie in some instances at vast heights above the plains below.

10. A **Volcano**¹ is generally a conical elevation with a cup-like hollow at its summit called a *Crater*,² from which lava, mud, &c., are ejected.

Volcanic districts especially are subject to *Earthquakes*. The *Geysers* of Iceland throw out jets of hot water; the *Solfataras* of Italy, &c., emit sulphur and other gases.

11. **Valley**.³—A sloping portion of land, bounded on either side by lands of greater height, forms a *Valley*.

The forms, both of valleys and of hills, are infinitely varied. Sometimes the slopes are long and gentle. In other cases they are abrupt and steep, so that the valley passes gradually into a ravine or defile. Valleys are generally named after the rivers which flow through them, as the *Valley of the Nile*. In Scotland the terms *Strath*, *Carse*, *Dale*, &c., are used, as *Strathmore*, &c.

12. **Desert**.—A tract of country which does not allow of sufficient cultivation to be fit for the settled abode of man, is called a *Desert*.

The vast region called the Sahara, in Africa, is the most prominent example. It is to the want of water that the sterility of such tracts is for the most part due. But even in the Sahara there are, here and there, a few fertile spots, called *Oases*.⁴

EXAMINATION QUESTIONS.

1. What proportions do the land and water of the globe bear to its whole extent?

2. How is the land distributed?

3. Name the *continents*.

4. Which of the *continents* belong to the Old, and which to the New, World?

5. What (in round numbers) is the area of each continent?

6. What is an *island*? What is the difference between an *islet* and an *eyot*?

7. Define the following terms and give examples of each:—(a) peninsula, (b) isthmus, (c) coast, (d) cape.

8. What is a *plain*? How are the great

plains of Eurasia and America distinguished?

9. Explain the words *table-land*, *high-land*, *plateau*.

10. What is (a) a *hill*, (b) a *mountain*?

11. How are small *hills* often distinguished?

12. Define the terms (a) *mountain-chain*, (b) *mountain-range*, (c) *mountain-group*, (d) *mountain-system*.

13. What is (a) a *volcano*, (b) a *geyser*?

14. What is a *valley*, and what varieties of aspect do valleys exhibit?

15. What is a *desert*? To what cause is the sterility of deserts for the most part due?

¹ Volcano, from *Vulcanus*, the god of fire.

² Crater, Gr. *krates*, a cup.

³ Valley, Lat. *vallis*.

⁴ Oasis, Gr. *oasis*, originally the name of an "island," in the "Sea of Sand" in North Africa.

II. WATER.

The terms applied to the various portions of the waters of the globe are the following :—

1. **Ocean**.—The vast expanse of water which covers the larger portion of the earth's surface is called the *Ocean*,¹ and is divided by the intervening lands into three great basins—the Pacific,² Atlantic,³ and Indian⁴ Oceans. The waters which lie around the north pole are, in addition, distinguished as the Arctic⁵ Ocean, and those in the neighbourhood of the antarctic circle are called the Antarctic⁶ Ocean. There are therefore, in all, five oceans.

(a.) The **Pacific Ocean** is by far the largest of the oceans, and covers more than a third part of the earth's surface. Its superficial extent is considerably greater than the united area of the several continents. In the direction of north and south—from Behring Strait to the Antarctic Circle—the Pacific stretches through more than 130 degrees of latitude, or upwards of 9000 miles; from east to west—between the 80th meridian west, and the 104th east, of Greenwich—its dimensions are still greater, exceeding 170 equatorial degrees, or above 12,000 miles. An ocean that measures 12,000 linear miles in one direction, and 9000 in another, must of necessity exercise a vast influence over all the lesser features of the earth's surface, and is of the highest importance to mankind.

The Pacific is distinguished from the other oceans by its shape, and by the character of its shores. It is a vast oval, the coasts of which, after making near approach in the extreme north, gradually recede towards the direction of the equator, along which line they attain their extremest distance apart. Thence to the southward, they again approximate, though in a much less degree than is the case in the northern half of the great ocean. The waters of the southern Pacific stretch, uninterrupted by land, to the line of the Antarctic Circle, and perhaps even to the pole itself.

The Pacific has no inland seas connected with its waters. Its eastern shores exhibit—the *Gulf of California* excepted—no indentations of the land upon a scale of great magnitude. But its western side displays a feature which is peculiarly characteristic of this ocean, in the range of seas and gulfs which stretch along the coasts of Asia, between the mainland and the neighbouring groups of islands. The following seas and gulfs, all of them arms of the Pacific, occur along the eastern side of the Asiatic continent :—

Sea of Kamchatka.	Japan Sea.	China Sea.
Sea of Okotsk, or	Yellow Sea.	Gulf of Tonquin.
Kurile Sea.	Gulf of Pe-che-lee.	Gulf of Siara.
Gulf of Tartary.	East Sea.	

The above are not inland seas, like the Mediterranean, the Baltic, or the Red Sea. They are merely extensions of the ocean itself, partially divided from its main body by a succession of island groups. Between these islands there are numerous channels and straits, which connect the partially land-locked gulfs of the Pacific with the ocean itself, and with one another.

¹ Ocean, Gr. *okeanos*.

² Pacific, Lat. *pacifus*, peaceful; so named by Magellan.

³ Atlantic, from Mount Atlas in Africa.

⁴ Indian Ocean, so named from its proximity to India.

⁵ Arctic, Gr. *arktos*, the bear, or the north.

⁶ Antarctic, Gr. *anti*, opposite to; *arktos*, the north.

(b.) The **Atlantic Ocean**.—If the lines of the arctic and antarctic circles be taken as marking the limits of the Atlantic in the direction of north and south, its meridional dimensions are the same as those of the Pacific—that is, upwards of 9000 miles. But its proportions in the opposite direction are greatly inferior. Along the line of the northern tropic the Atlantic measures 4500 miles across from east to west. It is there that its opposite shores are at their extreme limits apart. At the equator they are 4200 miles asunder—a space which, great as it is, is scarcely more than a third of the measure of the Pacific under the same line. Along the 50th parallel, only 2200 miles intervene between the shores of Britain and Newfoundland, and the distance measured along the arc of a great circle between the same points is still less. The distance between the nearest headlands of the African and South American coasts is only 1800 miles.

The Atlantic has the shape of a long valley, winding from north to south, somewhat in the shape of the letter S, like the successive curves of a river. The direction of its coasts upon either side, between the Arctic Circle and the Tropic of Cancer, is from north-east to south-west. Thence to the equator, the direction becomes reversed—or from north-west to south-east. From the easternmost point of Brazil southward, the shores of South America resume the same direction as that of the coasts upon either side of the northern Atlantic—that is, a direction from north-east to south-west.

The Atlantic is distinguished by its *inland seas*, with their numerous gulfs and other inlets, and the consequent extreme development of coast-line which its basin exhibits. This is characteristic of both its lines of coast, but is more especially so of its eastern than of its western shores.

The inland seas which belong to the Atlantic basin are :—

- (1.) The **Mediterranean**,¹ which is inclusive of the Black Sea, together with the numerous gulfs and channels belonging to that region, as the Adriatic, &c.
- (2.) The **Baltic Sea**, which includes the Gulfs of Bothnia, Finland, and others of less size.
- (3.) **Hudson Bay**, which is the only true inland sea belonging to the Atlantic basin on its western side.

Adding the measure of the Mediterranean and Baltic coasts, with those of Hudson Bay, to the circuit of the outer shores of the Atlantic, the total length of the *coast-line* which is developed in connection with the Atlantic waters greatly exceeds the coast-line of the Pacific. The Mediterranean and its gulfs alone have a coast-circuit of more than 13,000 miles.

The Atlantic has, both on its eastern and western side, seas which resemble those of the western Pacific in their character of partial division from its open basin by insular tracts of land. The seas that lie around the shores of Britain, on the one side—the *Gulf of St. Lawrence*, the *Mexican Gulf*, and the *Caribbean Sea*, on the other—are the most prominent examples. *Baffin Bay*, though situated to the northward of the Arctic Circle, yet belongs rather to the Atlantic basin than to that of the Arctic Ocean.

A circumstance of the highest importance in connection with the Atlantic (and especially so when regarded conjointly with its extended coast-line) is the fact that most of the great lowland-plains slope towards

¹ *Mediterranean*, Lat. *medius*, middle ; *terra*, land.

its basin. By far the larger number of the great rivers are discharged into the Atlantic and its gulfs. The Mississippi, St. Lawrence, Amazon, Orinoco, La Plata—the Rhine, Danube, Nile, Niger, and Senegal—are examples.

Soundings taken by the "Challenger," in the scientific voyage of 1873-75, indicate in the case of the Atlantic a *depth* of 23,250 feet in immediate proximity to the island of St. Thomas, West Indies. This exceeds by a half the height of Mont Blanc, and nearly equals the highest elevations of the Andes. Depths of 20,000 feet and upwards have been ascertained in other parts of the North Atlantic basin. A maximum depth of 15,600 feet appears to have been found in the southern portion of the Indian Ocean, to the southward of Australia. Still greater depths occur in the Pacific, where soundings showing upwards of 27,000 feet have been found off the coasts of Japan. It is likely that the sea-bed descends *below* the surface to a depth which is not inferior to the elevation of the highest points of the land *above* the same level.

(c.) The **Indian Ocean** is much smaller than either the Pacific or the Atlantic, and has a marked feature of distinction from either of them in the fact that it is limited by land to the northward. The waters of the two other great oceans stretch to the confines of the frigid zones in either direction, north and south alike. The Indian Ocean is bounded on the northern side by the continent of Asia, and is only open in the direction of the Antarctic Circle. Important consequences in regard to climate and other conditions in the physical geography of the globe ensue from this fact.

Under the line of the equator the Indian Ocean measures little less than 4000 miles across, from east to west; under the Tropic of Capricorn this breadth is increased to upwards of 5000 miles.

The Indian Ocean has two inland seas—the *Red Sea* and the *Persian Gulf*. These are of much smaller dimensions than the inland seas which belong to the Atlantic basin, but they possess the true character of land-encompassed bodies of water. The *Gulf of Aden*, the *Gulfs of Cutch and Cambay*, the *Bay of Bengal*, and the *Gulf of Martaban*, are off-sets of the Indian Ocean, but are neither inland seas nor land-enclosed gulfs.

The waters of the Indian Ocean are connected with those of the Pacific by the channels which divide the innumerable islands of the East Indian Archipelago. The *Strait of Malacca* and the *Strait of Sunda* are the two most important of these channels, and lead directly from the Indian Ocean into the China Sea. *Torres Strait*, farther to the eastward, forms another great channel of connection between the two oceans.¹

(d.) The **Arctic Ocean**—looked at either upon the artificial globe, or on a map projected upon the plane of the equator (which alone show its shape and proportions)—exhibits a circular and nearly

¹ Neither of the three great oceans has, properly speaking, any defined limit to the southward. Their waters communicate, without interruption from land, in that direction. The Antarctic Circle is assigned, for geographical convenience, as their common line of division from the waters that lie around the southern pole. A line drawn from Cape Horn to the Antarctic Circle is, for a like reason, assigned as the common limit between the waters of the southern Pacific and the southern Atlantic basins. A similar line drawn from Cape Agulhas southward indicates the boundary between the south At-

lantic and Indian Oceans, and the meridian which passes through the southernmost headland of Tasmania is regarded as the limit between the basins of the Indian Ocean and the southern Pacific. But these lines have no place in nature, and the term Southern Ocean is commonly applied to the belt of sea which extends (with little interruption from land) round the globe between the parallel of 35° south and the Antarctic Circle. The sea which washes the southern shores of Australia is thus spoken of as the Southern Ocean.

land-enclosed basin, common to the northern coasts of Europe, Asia, and North America. It is open to the Atlantic through the broad sea which flows between the shores of Norway and Greenland, upwards of a thousand miles across. It is only connected with the Pacific by Behring Strait, which is less than sixty miles across in its narrowest part.

The principal seas and inlets which belong to the Arctic basin are :—

1. On the coast of Europe, *White Sea*.
2. On the coast of Asia, *Sea of Kara*, *Gulfs of Obi and Yenesei*.
3. Of the numerous gulfs, bays, straits, and channels which divide the multitude of islands that adjoin the northern and north-eastern coasts of North America, the principal are :—*Baffin Bay*, connected with the Atlantic by Davis Strait, and with the "Paleocretic Sea," north of Greenland, by *Smith Sound*, *Kennedy Channel*, and *Robeson Channel*; *Gulf of Boothia*; *Coronation Gulf*, *Mackenzie Bay*, *Lancaster Sound*, *Barrow Strait*, *Melville Sound*, and *Banks Strait*, leading from Baffin Bay into the Arctic Sea on the west.

The Arctic Ocean and its various ice-encumbered channels supply the long-sought "North-West passage" between the Atlantic and Pacific, by way of the northern shores of the New World. This passage, after a lapse of three centuries since it was first sought, is now proved to exist. It is, however, useless for purposes of commerce, owing to the vast quantity of ice by which the seas of this region are encumbered, and the consequent perils (if not, as is the case in many seasons, the utter impossibility) of their navigation. Davis Strait, Baffin Bay, Lancaster Sound, Barrow Strait, Melville Sound, the Arctic Ocean, and Behring Strait form a continuous channel of connection between the Atlantic and Pacific. This channel, which may be readily traced out upon the map, forms "the North-West passage."

The limits of the Arctic Ocean in the direction of the pole are unknown. The farther distance northward to which its shores have been traced is through Smith Sound, at the northern extremity of Baffin Bay. Dr. Kane (of the United States Navy) passed two successive winters in the latitude of $78^{\circ} 37'$ (in the years 1853-55), and followed the land farther northward to the parallel of $80^{\circ} 53'$. At the farthest point reached there appeared to be an open sea to the northward. In 1875, Sir George Nares succeeded in carrying the "Alert" to the northern extremity of Robeson Channel, where he wintered. In the following spring sledge parties were sent out, and Commander Markham, with his brave companions, reached a spot in latitude $83^{\circ} 20' 26''$ north—the most northerly point on the globe that has yet been attained.

(e.) The **Antarctic Ocean** has been much less frequently visited than the seas that lie within the northern polar circle, and the space which it covers on the maps is for the most part a blank. Several portions of land have been seen by navigators, at distant intervals, along or near the line of the Antarctic Circle, and have been supposed to form part of an imaginary antarctic continent. The tract marked as South Shetland (to the southward of Cape Horn) is one of these.

The most extensive region actually visited within the Antarctic Circle, however, is South Victoria, which name was given to a line of coast discovered by Sir James Ross in 1841. Its shores stretch between the parallels of 70° and 78° south, in a direction lying nearly due southward of New Zealand. Two active volcanoes (the loftier of them, Mount Erebus, estimated

at upwards of 12,000 feet) were visible on this dreary and snow-covered region. Sir James Ross succeeded in penetrating, amongst the ice-encumbered seas which adjoin this distant land, as far as the latitude of $78^{\circ} 4'$, which is the nearest approach yet made to the south pole.

2. **Sea.**—The word *sea* is sometimes used as an equivalent for ocean, but is more generally applied to less extensive portions of the water, situated near the land. A sea which penetrates within the land, so as to be nearly enclosed by it, is called an *Inland Sea*.

The Mediterranean is the largest of inland seas. The Red Sea, between Africa and Asia, and the Baltic Sea, in the north of Europe, are other examples.

3. **Inlets**, or indentations of the coast-line, are variously named according to their form and size.

A **Bay**¹ is a short arm of the sea indenting the land, as the *Bay of Biscay*.

A **Bight**¹ is an open bend in the line of coast, as the *Bight of Biafra*.

A **Gulf**² is a longer arm of the sea, penetrating farther into the land, as the *Gulf of Venice*.

. A *gulf* penetrates farther into the land than a *bay*.

A *bay* penetrates farther into the land than a *bight*.

Smaller openings or inlets, sufficiently deep and sheltered for vessels to lie in safety, and discharge and receive their cargoes, are called **Havens**, **Harbours**, or **Ports**.

A **Creek**³ or **Cove** is a small opening in the coast.

A **Firth**, **Flord**, or **Fjord**, is a narrow inlet, as the *Firth of Forth*, *Sogne Fjord*.

An **Estuary**⁴ is an inlet forming the mouth of a *tidal* river, as the *Estuary of the Thames*.

4. **Strait—Channel.**—The portions of water connecting larger expanses are called *Straits*, *Channels*, or *Sounds*.

A **Strait**⁵ is a narrow arm of the sea connecting two larger portions, as the *Strait of Gibraltar*, which forms the entrance of the Mediterranean; the *Strait of Dover*, which unites the seas on the eastern and southern coasts of England; and the *Strait of Bab-el-Mandeb*, at the entrance of the Red Sea.

A **Channel**⁶ is a broader arm of the sea, as the *English Channel*, between the coasts of England and France.

A **Sound** is a narrow arm of the sea between an island and the mainland, as the *Sound* between Sweden and the island of Zealand.

5. **Lake.**⁷—A lake is a body of inland water surrounded by land. The lakes of Geneva and Constance, in Switzerland; Lake Ladoga, in Russia; and Lake Superior, in North America, are examples. Small lakes often occur in mountainous countries, their beds consisting of hollows or depressions in the land, in which the running waters have accumulated.

¹ Bay, Bight, A.-S. *bigan*, to bend.

² Gulf, Gr. *kolpos*, a fold.

³ Creek, A.-S. *crecca*, a corner.

⁴ Estuary, Lat. *æstuarium*, appertaining to the tide.

⁵ Strait, Lat. *strictus*, drawn together.

⁶ Channel, Lat. *canalis*, a waterpipe.

⁷ Lake, Lat. *lacus*; cf. Celtic *loch*.

Lakes may be thus classified:—

- (1.) Lakes which receive rivers, but have no outlet.
- (2.) Lakes which do not receive any rivers, but have an outlet.
- (3.) Lakes which both receive and emit rivers.
- (4.) Lakes which receive no rivers, and have no outlet.

A Pond¹ is a small body of *fresh water*, and has no outlet.

A Lagoon² is a shallow lake of *salt water* near the sea.

6. River.³ A river is a stream of water running through the land, and generally rises in high ground, and discharges its waters into the sea, sometimes passing through one or more lakes on its way. Almost every place has in its neighbourhood examples of small running streams or brooks: the junction of several such brooks, so that their waters become united in a larger channel or water-course, forms a river. The *Thames*, the *Severn*, and the *Shannon*, in our own islands, are among the most prominent examples of rivers; the *Danube* and the *Volga*, on the continent of Europe, are instances on a larger scale.

The *Source* of a river is where it *begins*.

The *Mouth* of a river is where it *ends*.

The *Bed* of a river is the hollow along which it *flows*.

The *Banks* of a river are the margins of land between which it flows—that on the right-hand side is called the *right bank*, that on the left, the *left bank*.

The *Length* of a river is the distance between its source and its mouth.

The *Width* of a river is the distance between its banks.

The *Basin* of a river is the whole tract of country which is watered by it and its tributaries. Thus, we say (in physical geography), the basin of the *Thames*, the basin of the *Danube*—meaning thereby the whole district through which those streams, with all their affluents, respectively flow.

A *Tributary* or an *Affluent*⁴ is a small stream which joins a larger river. Thus the small river *Kennet*, in Berkshire, is an affluent of the *Thames*; and the river *Inn* is an affluent of the *Danube*.

When a large river falls over a precipice it forms a *Cataract*.⁵ The fall of a small river forms a *Cascade*.⁶ When the slope of the bed of a river is steep or uneven, a *Rapid* is formed. An artificial water-course is called a *Canal*.

7. *Water-shed*.⁷ A water-shed or, more correctly, “water-parting,” is the ground which divides two adjacent streams that flow in opposite directions.



This generally (but by no means always) consists of a high tract of land, sometimes of a chain of mountains; and it is, in every case, formed by

¹ Pond, A.-S. *pyndan*, to shut in.

² Lagoon, Lat. *lacuna*, anything hollow.

³ River, Lat. *ripa*, a bank, whence *riparium*.

⁴ Affluent, Lat. *affluere*, to flow to.

⁵ Cataract, Gr. *kataraktes*, a fall.

⁶ Cascade, Lat. *cado*, I fall.

⁷ Water-shed. This term is commonly

but erroneously used as if equivalent to the German word “*Wasser-Scheide*,” which is defined by Ritter as “the mathematical line from which the descent of rivers begin” (“*Die mathematische Linie, von welcher alle Fallthätigkeit der Flüsse beginnt*”). “Water-parting” is therefore the more correct term, and should be substituted for “water-shed.”

ground which is higher than that through which the streams actually flow, for the natural tendency of water is to run down a sloping ground, from a higher to a lower level. Some rivers, however, rise in ground which is nearly level, and at only a trifling height above the sea; and, in such cases, the water-shed may consist of ground which does not exhibit any marked elevation above the adjoining plain.

EXAMINATION QUESTIONS.

1. What is the ocean, and how is it divided?
2. Give a few particulars relative to each of the five great oceans.
3. What part of the sea is sometimes called the *Southern Ocean*?
4. Distinguish between a sea and an inland sea.
5. How are the principal and lesser inlets distinguished?
6. Define the terms *strait*, *channel*, *sound*.
7. What is a lake? Give some examples.
8. How may lakes be classified?
9. What is a river?
10. What is meant by the source, mouth, bed, banks, and basin of a river?
11. What are streams that join larger rivers called?
12. Define the terms *cataract*, *cascade*, *rapid*, *canal*.
13. What is generally meant by the term *water-shed*?

POLITICAL GEOGRAPHY.

THE world contains not less than 1450 millions of inhabitants, of which Europe contains 320 millions; Asia, 830 millions; Africa, 200 millions; America, 96 millions; and Oceania, 4 millions.

This vast number of human beings is most irregularly distributed, some portions of the earth, limited in extent, being peopled by millions, while other vastly greater portions have scarcely any inhabitants.

The average density of *population* in proportion to *area*, that is, the average number of persons to the square mile, is—Europe, 86; Asia, 47; Africa, 16; America, 6; Oceania, 1.

The most populous countries in the world are:—

1. In Europe, . . .	<i>Belgium</i> , ¹	with 481 inhabit. to the square mile.
2. In Asia, . . .	<i>China</i> ,	" 236 " "
3. In Africa, . . .	<i>Egypt</i> ,	" 30 " "
4. In North America, . . .	<i>Guatemala</i> ,	" 47 " "
5. In South America, . . .	<i>Chili</i> ,	" 15 " "
6. In Australia, . . .	<i>Victoria</i> ,	" 10 " "

1. **Race.**—Although *all* the peoples of the earth are members of the same "human family," the natural differences in *colour* and *feature* broadly divide them into five great classes or races, viz.:—

(1.) The **CAUCASIAN** (Indo-European), or *white* race, inhabiting Europe, Western Asia; and North America, Australia, New Zealand, and other countries colonised by Europeans.

(2.) The **MONGOLIAN**, or *yellow* race, occupying Northern and Eastern Asia, Japan, and also includes the Magyars, Turks, Lapps, Finns, Esquimaux, and Samoiedes.

(3.) The **NEGRO**, or *black* race, inhabiting the whole of Africa from the Sahara to Cape Colony.

¹ i.e., according to the estimated population in 1878. In 1881, *England* had an average population of 483 to the square mile.

(4.) The **MALAYAN**, or *brown race*, inhabiting the Malay Archipelago and Polynesia, and also includes the Hovas of Madagascar.

(5.) The **INDIAN**, or *red race*, includes the aboriginal natives of America, now almost entirely supplanted in North America, and to a less extent also in South America, by European colonists and their African slaves.

The following is a rough estimate of the numbers belonging to each race :—

Caucasian or Indo-European, ...	550,000,000
Mongolian or Turanian, ...	635,000,000
Negro, ...	215,000,000
Malayan, ...	35,000,000
Indian or American, ...	15,000,000

Total,	1,450,000,000
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2. **Language.**—Besides the distinctions of colour and feature which mark out the *races* of men, there is also the important distinction of *language*.

The *races* of mankind are thus further subdivided according to the *language* spoken. The difference in language broadly marks out the *nations* of the world. Generally speaking, the different *countries* are occupied by different *nations* speaking different *languages*, *e.g.*, France, Germany, &c. But sometimes peoples of different nations, and speaking different languages, are *politically* united, *e.g.*, Switzerland (Germans, French, Italians, &c.).

The inhabitants of the world are therefore divided according to *colour* and *feature* into *races*, and according to their language into *nations*.

There is, further, an all-important difference in the *religious beliefs* of mankind.

3. **Religion.**—The religions of the world may be broadly divided into two classes—*polytheism*, or belief in many gods; and *monotheism*, or belief in one God.

a. **Polytheism** is divided into

- (1.) *Brahminism*, of the Hindoos, and in South Asia.
- (2.) *Buddhism*, of Eastern Asia, the widest spread of all religious forms.
- (3.) *Fire worship*, of the Parsees of India.
- (4.) *Fetichism*, of the African and other savage tribes.

b. **Monotheism** is divided into

- (1.) *Christianity*, founded on both the Old and New Testaments, and is "the religion of liberty, of civilisation, and of charity."

Christianity is subdivided into

- (a.) *Protestantism*, which acknowledges no other authority than the Bible, and adopts two sacraments only.
- (b.) *Catholicism*, of which the Pope of Rome is the head, and which admits the seven sacraments, &c.
- (c.) *Greek Church*, to which the Russians, &c., belong.
- (2.) *Judaism* receives the Old Testament only, and rejects the New.
- (3.) *Mohammedanism*, based mainly on Judaism, and adopting some of the Christian tenets, but rejecting the doctrine of the Trinity, the sacraments, &c.

Christianity prevails throughout Europe, America, Australia, &c. *Judaism* is professed by the Jews. *Mohammedanism* prevails in South-west Asia, North Africa, and Turkey, and is divided into two great sects, the *Shiites* and the *Sunnites*.

The following is a rough estimate of the numbers professing each religion :—

Christians	Protestants, ...	120,000,000
	Roman Catholics, ...	170,000,000
	Greek Church, ...	95,000,000
	Other Christian sects, ...	30,000,000
Jews, ...		7,000,000
Mohammedans, ...		160,000,000
Buddhists, ...		450,000,000
Brahmins, ...		200,000,000
Heathens (Fetish worshippers, &c.), ...		160,000,000
Unknown, ...		58,000,000
Total, ...		1,450,000,000

There is also a vast difference in the *condition* of the nations of the world, some having attained an advanced civilisation, and others remaining in the lowest state of barbarism.

4. Government.—Nearly all the nations of the earth live under some form of government. Barbarous and savage races are generally subdivided into tribes, each despotically governed by its own *chief*. The more civilised nations live under a *monarchical* or *republican* form of government.

(1.) The *monarchical form* of government is that in which the governing power is vested in a hereditary or elective monarch. In a *despotic monarchy* all the powers of government are vested unreservedly in the monarch. In a *limited monarchy*, the executive power only is vested in the monarch, the legislative power being vested in an elected or hereditary council or parliament.

(2.) In a *republican government* the whole power is virtually exercised by the people through their elected representatives; the executive power being vested in a *President* chosen for a term of years, and the legislative in an elected council or senate.

5. Revenue—Expenditure.—The expenses connected with the government of a country, the maintenance of an army and navy, the administration of justice, &c., are met by the imposition of *taxes*, either directly on persons, houses, land, &c., or indirectly on articles exported, or imported, or manufactured for home consumption. The total amount thus received is called the *Revenue*; and if insufficient to meet the *Expenditure*, additional taxes are imposed, or the deficiency is covered by money borrowed by the state. The annual statement furnished by the government of the estimated expenditure and revenue is called the *Budget*.

6. National Debt.—In times of war the current expenditure is generally much in excess of the ordinary revenue, and if hostilities are prolonged for a considerable time, the *National Debt* thus incurred amounts to such a sum that it cannot possibly be paid off; although in times of peace, under favourable circumstances, it may be considerably reduced. A certain portion of the annual revenue is therefore reserved to meet the charges for the “interest” and “management” of the national debt.

Nearly all the more advanced states are saddled with enormous national debts, but, with few exceptions, the interest (which, in the case of the United Kingdom, amounts to *more than one-third of the annual revenue*) is regularly paid. Several states pay no interest whatever, and a few have even repudiated their “debts.” Although generally by far the larger portion of the

"national debts" of the principal countries of the world were originally incurred in times of war, still considerable sums were borrowed from time to time to develop the national resources by the construction of railways and other important public works.

7. **Industries.**—The industries of a country depend not only upon its natural productions, but also upon the character of its inhabitants; thus England has become a great manufacturing country by reason of the abundance of coal, iron, and other useful minerals and metals, and the industry and energy of its inhabitants.

Agriculture, manufactures, and commerce form the chief industries of the more advanced nations, but semi-civilised and savage peoples are generally engaged in pastoral pursuits.

The industrial advancement of a nation is evidently dependent to a large extent on the means of intercommunication by navigable *rivers, roads, canals, and railways*; but real progress, both material and intellectual, is only possible when the advantages of education are widely diffused by means of *schools, colleges, and universities*.

EXAMINATION QUESTIONS.

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| <ol style="list-style-type: none"> 1. What is the total population of the world? Give the estimated numbers for each of the continents. 2. What is the average density of population in each of the continents? 3. What are the most thickly-peopled countries in the world? 4. How many varieties or <i>races</i> of men are there? Name them. What part of the world does each race principally inhabit? What numbers belong to each race? 5. What distinction is generally founded on <i>language</i>? 6. How may the "religions of the world" be broadly divided? 7. Name the three principal forms of Christianity. | <ol style="list-style-type: none"> 8. What are the numbers belonging to the various religions? 9. Under what form of <i>government</i> do (a) savage, and (b) civilised, nations live? 10. Distinguish between the <i>monarchical and republican</i> forms of government. 11. Explain the terms—<i>revenue, expenditure, budget, national debt</i>. 12. What are the principal <i>industries</i> of civilised nations? 13. What are the principal means of <i>intercommunication</i> in England? 14. <i>Education</i> is a most important factor in the progress of any country. Prove this. |
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DIVISIONS OF THE EARTH.

EUROPE, ASIA, AFRICA, AMERICA, AUSTRALIA, and POLYNESIA are the six great divisions of the Earth. Five of the number, as we have already seen, are continents—that is, large masses of land; the last mentioned of them, Polynesia,¹ consists of a vast number of islands, which lie within the Pacific Ocean, and are surrounded by its waters.

¹ Polynesia, Greek, *polus nesos*, many islands.

EUROPE.

EUROPE¹ lies entirely within the northern hemisphere, and forms the north-western portion of the Old World.

BOUNDARIES.—Europe is bounded on the *north* by the Arctic Ocean; on the *west* by the Atlantic Ocean; on the *south* by the Mediterranean Sea, the Black Sea, and the chain of Mount Caucasus; and on the *east* by the Caspian Sea, the river Ural, and the range of the Ural Mountains.

Europe is not a continent in the strict sense of the term as applied to a "separate and independent mass," like America or Australia, but is, in fact, an immense peninsula jutting out from the western side of Asia, and forming with it by far the largest continuous mass of land. On the south, Europe is entirely separated from Africa by the Mediterranean, and, on the west, from North America by the Atlantic.

The *extreme points* of the mainland are *Cape Nordkyn* ($71^{\circ} 6' \text{ N.}$) on the north; *Cape Tarifa* ($36^{\circ} 1' \text{ N.}$) on the south; the *source of the River Kara* (66° E.) on the east; and *Cape Roca* ($9^{\circ} 28' \text{ W.}$) on the west.

EXTENT.—The greatest *length*, from Cape St. Vincent to the Ural Mountains, is 3370 miles; the greatest *breadth*, from Cape Nordkyn to Cape Matapan, is 2400 miles. *Area*, including the islands, 3,700,000 square miles.

Europe is therefore, next to Australia, the smallest of the continents; it being about *one-fifth* the size of Asia, *one-fourth* of America, *one-third* of Africa, and *one-fourteenth* of the total area of the land surface, or *one-fifty-third* part of the whole surface of the globe.

COASTS.—Very irregular, exhibiting a great many indentations, by means of which the waters of the adjoining seas penetrate far within the general line of its coast. This circumstance causes Europe to have a greater extent of coast-line, in proportion to its size, than is possessed by any of the other continents.

The coast-line of Europe is estimated at 19,500 miles, or 1 mile of coast to every 190 square miles of area. In Russia no part is more than 700 miles from the sea; in all other European countries the distance is everywhere under 400 miles. The principal features are:—

1. **INLETS.**—The principal inland seas, bays, and gulfs, belonging to Europe are:—the Mediterranean,² Sea of Marmora, Black Sea, and Sea of Azov on the *south*; the Caspian Sea, on the *south-east*; the Bay of Biscay, English Channel, Irish Sea, North Sea or German Ocean, Zuyder Zee, and Baltic Sea, on the *west*; and the White Sea,³ on the *north*.

(1.) The **Mediterranean** is the largest inland sea in the world, being above 2,400 miles long, and covering nearly 1,000,000 square miles. It includes the gulfs of *Lions*, *Genoa*, *Corinth*, *Sidra*, and *Kabes*, and four minor seas, *Adriatic Sea* (with the Gulfs of Trieste and Quarnero), *Tyrrhenian Sea*, *Ionian*

¹ Europe: first given to the land bordering on the Hellespont. Ritter is of opinion that it is derived from *Apia*, the Scythian name for the plains west of the Caspian.

² Mediterranean, Lat. *medius*, the middle, and *terra*, land.

³ The White Sea is so called from its being covered with ice for half the year.

Sea, and the *Archipelago*.¹ It is divided into two basins by a submarine ridge extending from Sicily to Cape Bon on the opposite African coast. Its waters are saltier than those of the ocean, consequently a current flows into it from the Atlantic through the Straits of Gibraltar.

(2.) The *Black Sea*² has an area of about 180,000 square miles, and receives the drainage of the third of Europe. Though deep and free from islands and rocks, its navigation is rendered dangerous by sudden and violent storms and dense fogs, hence its name "*Kara Deniz*," i.e., the Black Sea. The *Sea of Azov* has an area of 20,000 square miles, and is shallow and partially frozen over in winter.

(3.) The *Bay of Biscay*³ is frequently disturbed by violent storms.

(4.) The *North Sea*⁴ has an area of 244,000 square miles, and is comparatively shallow, especially between England and Holland. Numerous sandbanks and severe storms combine to render its navigation dangerous and difficult.

(5.) The *Irish Sea* between Great Britain and Ireland is comparatively deep, but subject to violent storms.

(6.) The *Baltic Sea*⁵ includes the *Gulfs of Bothnia, Finland, and Riga*, and has an area of 135,000 square miles. The Baltic is generally shallow, especially in the north, and its waters are fresher than those of the Atlantic. Both the Baltic and the Mediterranean are nearly, if not entirely, tideless.

(7.) The *Zuyder Zee* was formed by an irruption of the sea in the 13th century.

2. CHANNELS and STRAITS.—The principal are :—

(1.) **On the west :** the *Skager-rack* (68 miles across) and the *Kattegat* (65 miles), form a continuous channel leading from the North Sea to the Sound (3 miles), the *Great Belt* (12 to 24 miles), and the *Little Belt* ($\frac{3}{4}$ mile), three straits which lead into the Baltic, between the Danish islands and the coasts of Sweden and Jutland. The *Strait of Dover* (21 miles) connects the North Sea with the English Channel.

(2.) **On the south :** the *Strait of Gibraltar* (8 miles) forms the entrance to the Mediterranean. The *Strait of Messina* (8 miles) divides the island of Sicily from the Italian Peninsula. The *Dardanelles* (1 mile) is a strait leading from the Archipelago into the Sea of Marmora. The *Bosphorus*, or Channel of Constantinople (1 mile), leads from the Sea of Marmora into the Black Sea ; and the *Strait of Kertch*, or *Yenikale* (4 miles), connects the Black Sea with the Sea of Azov.

The Sound, the Strait of Gibraltar, the Dardanelles, and the Bosphorus are the most important of the above. The Sound, because it forms the most frequented channel of entrance to the Baltic Sea ; the Strait of Gibraltar, because it is the only entrance to the Mediterranean ; and the Dardanelles and Bosphorus, because they are the only channels of entrance to the Black Sea.

3. **CAPES.**—The principal capes are :—Cape Nordkyn, North Cape, and the Naes, in Norway ; the Skaw, in Denmark ; Ortegal and Finisterre, in Spain ; Roca and St. Vincent, in Portugal ; Trafalgar and Tarifa, in Spain ; Di Leuca and Spartivento, in Italy ; Matapan, in Greece.

¹ The ancient *Ægean Sea*, in Greek, *aipeiros pelagos*, of which the modern name is a corruption. The word "*archipelago*" has become applied as a general term to seas, which, like the Grecian Archipelago (or *Ægean*), contain a great many islands, and, by modern usage, to the islands themselves. Thus we speak of the British Archipelago, the East or West Indian Archipelago, and so on.

² Black Sea (Turkish *Kara Deniz*), so called from the frequent dense fogs and

storms. The ancients first named it *Asinos*, inhospitable ; afterwards changed to *Euxinos*, hospitable.

³ Bay of Biscay, from a Spanish province bordering upon it. Fr. *Golfe de Gascogne*, from the old French province of that name.

⁴ North Sea, also called the "*German Ocean*."

⁵ Baltic, either from *Baltia*, the ancient name of Zealand, or from the Lat. *balneus*, a bath. Cf. Great Belt and Little Belt.

The *most northerly* point of the continent of Europe is Cape Nordkyn. North Cape is on an island (Mageröe), and is 6' farther north. The *most westerly* point is Cape Roca in Portugal, and the *most southerly*, Cape Tarifa, in Spain.

PENINSULAS.—Europe is distinguished by the great number of its peninsulas, the inhabitants of which enjoy naturally great advantages for maritime intercourse and traffic. It is a remarkable fact that all the larger peninsulas of Europe, except Jutland, are turned towards the south.

The principal peninsulas are :—Norway and Sweden, which together form the Scandinavian Peninsula; ¹ Jutland, which forms a portion of Denmark; Spain and Portugal, or the Spanish Peninsula; Italy; the Morea, which is part of Greece; and, lastly, the Crimea, which is a part of Russia. All these peninsulas are connected with the mainland by *isthmuses*, of which the most important are :—

1. The **Isthmus of Corinth** (4 miles across), joining the Morea to the mainland of Greece.
2. The **Isthmus of Perekop** (5 miles wide), uniting the Crimea to the mainland of Russia.

ISLANDS.—Europe has a great number of islands, some of them situated in the Atlantic and Arctic Oceans, others in the Baltic, and others in the Mediterranean Sea. The islands of Europe are naturally divisible into four classes, according to their position :—

1. **In the Atlantic Ocean**, naming them in order from north to south, are the following :—Iceland, the Faröe Islands, the British Islands, the Channel Islands (off the coast of France), and the Azores ² or Western Islands.

2. **In the Arctic Ocean** are Nova Zembla, Vaygatz, Kolgouev, Jan Mayen, and the Loffoden Islands. Nova Zembla is really a very extensive group of islands, but is situated in so high and cold a latitude as to be nearly (if not quite) uninhabitable.

3. **In the Baltic Sea** are Zealand, Funen, and several of smaller size, which together form the Danish Archipelago, and lie at or near its entrance; with Rugen, Bornholm, Oland, Gothland, Oesel, Dago, and the group of the Aland Islands. The island of Zealand has on it Copenhagen, the capital city of Denmark.

4. **In the Mediterranean** are Sicily, Sardinia, Corsica, Candia, and Cyprus, ³ which are all of large size. Sicily is the largest, and Sardinia is second in point of magnitude. The smaller islands are Majorca, Minorca, and Iviza (which form together the Balearic Islands); Elba, off the west coast of Italy; the Lipari Islands, to the north of Sicily; Malta, south of Sicily; the Ionian Islands, to the west and south of Greece; and the numerous islands of the Archipelago, among which Negropont, or Eubœa, is the most considerable.

The most important of the islands of Europe are the *British Islands*, which include England, Wales, Scotland, and Ireland, and which lie off the western coast of Europe, within the Atlantic Ocean. England and Wales, with Scotland, together form the island of Great Britain, which is the largest of European islands. *Iceland*, which also lies in the Atlantic Ocean, but much farther to the northward, is the second in point of size.

¹ Scandinavia was the ancient name of the countries lying on the western side of the Baltic Sea.

² The Azores lie a long way out in the

ocean, 600 miles to the west of Portugal, and hence too far off to be shown upon the map.

³ The island of Cyprus is reckoned to belong to Asia.

EXAMINATION QUESTIONS.

Note.—It is indispensably requisite that the student should constantly refer to the map; for geography is undoubtedly most rapidly learnt upon the map, and by its aid. The facility—acquired by continual practice—of finding places upon the map, is the indispensable condition of geographical knowledge, in the only sound meaning of the term.

1. How many great divisions of the earth are there?
2. Which of them are continents?
3. Name the boundaries of Europe.
4. What is the extent of Europe, (a) length, (b) breadth, (c) area?
5. Compare the areas of Europe and the other continents.
6. Describe the coasts of Europe.
7. Name the principal inlets of Europe, and give a few particulars relative to the most important of them.
8. What seas, bays, and channels occur on the west side of Europe?
9. What is the Bay of Biscay noted for?
10. What two channels and three straits lead from the North Sea to the Baltic?
11. What strait connects the North Sea with the English Channel?
12. What forms the entrance of the Mediterranean?
13. What strait divides Sicily from the mainland of Italy?
14. Name the three straits that lead from (a) the Archipelago into the Sea of Marmora, (b) from the Sea of Marmora into the Black Sea, (c) the Black Sea into the Sea of Azov.
15. Which are the most important straits of Europe, and why?
16. Name the principal capes of Europe, and say which form the most northerly, southerly, and westerly points.
17. What peninsulas belong to Europe?
18. Name the two principal isthmuses.
19. Name the European islands that are situated (a) in the Atlantic Ocean, (b) in the Arctic Ocean, (c) in the Baltic Sea, (d) in the Mediterranean.
20. Which are the most important among the islands of Europe, and which is the largest of them?

MOUNTAINS.—Europe exhibits great variety of surface. The southern parts are mountainous. The middle parts are less elevated, but may be considered as hilly. The north-western peninsula (Norway and Sweden) also contains high mountains. But the whole of eastern Europe consists of a vast plain, nearly level, or only diversified by very slight elevations.

The principal mountain-ranges of Europe, with the countries in which they are situated, are as follow :—

The Alps,	on the borders of Italy, France, Switzerland, and Austria.
The Apennines,	in Italy.
The Balkans and Mt. Pindus,	in Turkey and Greece.
The Pyrenees,	between France and Spain.
Cantabrian and Castilian Mountains, Sierra Morena and Nevada,	in the Spanish peninsula.
The Carpathian Mountains,	in the Austrian Empire, between Hungary and Galicia.
Harz Mts., Black Forest Range, and Mts. of Bohemia,	in Germany.
The Cevennes,	in France.
Hardangerfield, Dovrefield, and Kiölen Mountains,	in Norway and Sweden.
The Ural Mountains,	in Russia, on the border of Europe and Asia.
Mount Caucasus,	in Russia, also on the border of Europe and Asia.

The mountains of Europe may therefore be divided into four groups: viz. (1) the southern; (2) the central and western; (3) the north-western; and (4) the eastern.

1. The Alps, the Apennines, the Balkan Mountains, the chain of Mount Pindus, the Pyrenees and the Sierra Nevada—all belong to the south of Europe, and are not far distant from the shores of the Mediterranean.

(1.) The Alps are the highest mountains in Europe, and extend round the north of Italy, and divide that country from France, Switzerland, and Germany. All the upper portions of the Alps are covered with snow, which, owing to the intense cold resulting from their great elevation, never melts. The loftiest mountain among the Alps bears the name of *Mont Blanc*; it is on the borders of Savoy and Piedmont, and within the kingdom of Sardinia. Mont Blanc reaches the great height of 15,700 feet (or nearly three miles) above the sea.

(2.) The Apennines are a chain of mountains which branch off from the Alps, and extend through nearly the whole length of Italy. They are much less elevated than the Alps, having an average height of between 3000 and 5000 feet.

(3.) The Balkan Mountains (average elevation, 4000 feet) form a chain extending from the Black Sea westward towards the Adriatic, where they become united to the eastern offsets of the Alpine system of mountains. From the Balkan Mountains a chain, called Mount Pindus, extends to the southward into Greece.

(4.) The Pyrenees (highest point, 11,426 feet) are a chain of mountains which divide France and Spain, and are covered with perpetual snow in their higher portions.

(5.) Many other mountains occur in the Spanish peninsula; the highest among them are the Sierra Nevada, near the Mediterranean coast, and which are nearly as lofty as the Pyrenees, their highest point being 11,000 feet above the sea.

2. The countries of middle and western Europe include the Carpathian Mountains (in the eastern part of the Austrian Empire), the mountains of Germany, and the mountains of central France. None of these are so elevated as the mountains of southern Europe.

(1.) The Carpathians have an average elevation of between 5000 and 6000 feet in their higher portions. They form nearly a semicircle, 700 miles in length, enclosing Hungary.

(2.) The Mountains of Germany have an average elevation of not more than 2000 or 3000 feet. The principal are the Harz Mountains; Erz, Riesen, Sudeten, and Mährische Gebirge; Thüringer, Böhmer, and Schwarz, Wald, and the northern portion of the Vosges.

(3.) Of the Mountains of France the principal are the Cevennes and Mountains of Auvergne. Mount Jura is between France and Switzerland, and the Vosges, between France and Germany. These ranges have an average height of 2000 to 3000 feet.

3. The Scandinavian peninsula, in the north-west of Europe, includes a long chain of mountains lying close along the shores of the Atlantic Ocean. They are very much less elevated than the Alps, but, owing to the higher latitude in which they are situated, and the consequently greater cold of the climate, their higher portions are covered throughout the year with snow.

(1.) The Scandinavian Mountains are known as the Hardangerfeld, Langfeld, and Ymesfield in the south; the Dovrefield in the centre; and the Kiölen Mountains in the north. The highest point is Galdhøpiggen (8546 feet) in the Ymesfield.

4. The Ural Mountains, on the border of Europe and Asia, form a chain 1200 miles in length, of an average elevation of 2000 to 3000 feet, except in the middle, where the average height is under 1500 feet.

Mount Caucasus, in the south-east, is a long and very high mountain-chain extending between the Black and the Caspian Seas, and forms one of the natural boundaries between Europe and Asia. The highest point is Elburz, 18,700 feet above the sea.

VOLCANOES.—The *active* volcanoes¹ of Europe, with one exception, are situated on islands; those on the mainland are *extinct*. The principal active volcanoes are *Hekla* (5000 feet), in Iceland; *Etna*² (10,800 feet), in Sicily; *Vesuvius*³ (4000 feet), near Naples; and *Stromboli*, one of the Lipari Islands. Examples of extinct volcanoes are found in almost every part of Europe, *e.g.*, the mountains of Auvergne in France, the Westwewald, Eastern Pyrenees, &c.

PLAINS.—All the east of Europe is a great lowland, or plain, including nearly the whole of Russia, and also extending along the southern shores of the Baltic, and thence to the coast of the North Sea, including part of Prussia and other German States, Denmark, and Holland. This vast extent of level country is so much greater than is met with in any other part of Europe, that it may be called the *Great Plain*.

The other plains of Europe are the following :—

The Plain of Hungary, . . .	within the eastern part of the Austrian Empire.
The Plain of Wallachia and Bulgaria, . . .	to the north of Turkey.
The Plain of Lombardy, . . .	in the north of Italy.
The Plain of Languedoc, . . .	in the south of France.
The Plain of Bohemia, . . .	in the north-west of Austria.
The Plain of Andalusia, . . .	in southern Spain.

DRAINAGE.—The *great water-shed*,⁴ or *water-parting*, of Europe may be approximately marked by a line drawn from Cape Tarifa to the Uralian Mountains, just north of Mount Konjakovski. From this medial line of heights that determine the hydrography of Europe, the land slopes more or less regularly to the north-west and south-east. The north-western slope is nowhere of any considerable width; the south-eastern slope is much more extensive. The latter therefore admits of the development of *large* rivers; those of the former are inferior both in length and area of drainage. The drainage of the north-western slope flows either directly into the Arctic and Atlantic Oceans, or into the White Sea, Baltic, and North Sea; that of the south-eastern slope is discharged into the Mediterranean, Black Sea, Sea of Azov, and Caspian Sea.

Of a total area of 3,700,000 square miles, 800,000 square miles are drained *directly* into the Arctic and Antarctic Oceans; 200,000 into the White Sea; 800,000 into the Baltic; 300,000 into the Mediterranean; 900,000 into the Black Sea and Sea of Azov; and 700,000 into the Caspian Sea.

RIVERS.—Every part of Europe is watered by running streams, the greater number of them navigable for long distances inland. Many of them form good harbours at their mouths. In these respects, indeed, Europe is unsurpassed by any of the divisions of the globe.

¹ Volcanoes, Lat. *vulcanus*, the god of fire.

² *Etna*. Last eruption, 1839. Since B.C. 476 it has been in eruption sixty times.

³ *Vesuvius*. First eruption on record in A.D. 79, when Herculaneum and Pompeii were destroyed.

⁴ *Water-shed*, or *water-parting*, strictly means the "line of heights" which divide two contiguous river-basins. By a *great water-shed* is meant that which broadly divides two *sets* of river-basins on the opposite slopes of a continent.

The rivers of Europe may be grouped into three main *systems*,¹ according as they may flow directly or indirectly into the Arctic and Atlantic Oceans or into the Caspian Sea. The latter forms what is termed a "Continental" system, that is, none of its rivers are connected with the ocean either directly or indirectly.

1. The **Arctic River System** of Europe includes all those rivers that drain the northern slope of the continent. The principal are those—

(1.) *Flowing directly into the Arctic Ocean* :—Petchora, 900 miles long.

(2.) *Flowing into the White Sea* :—Mezen, 480 m.; Dvina, 760; Onega, 380.

2. The **Atlantic River System** of Europe comprises all the rivers that flow over the western and southern slopes of the continent into the Atlantic and its minor seas. The principal are those—

(1.) *Flowing directly into the Atlantic* :—Glommen, 400 miles; Göta, 70; Loire, 570; Garonne, 350; Minho, 200; Douro, 460; Tagus, 510; Guadiana, 450; Guadalquivir, 290; Shannon, 224.

(2.) *Flowing into the Baltic Sea* :—Oder, 550 miles; Vistula, 630; Niemen, 400; Dvina, 550; Neva, 40; Tornea and Dal, each 350.

(3.) *Flowing into the North Sea* :—Elbe, 600 miles; Weser, 380; Rhine, 760; Meuse or Maas, 550; Scheldt, 250; Thames, 215; Trent, 180; Ouse, 150; Tay, 100.

(4.) *Flowing into the English Channel* :—Seine, 430 miles.

(5.) *Flowing into the Bristol Channel* :—Severn, 240 miles.

(6.) *Flowing into the Mediterranean* :—Xucar, 250 miles; Ebro, 420; Rhone, 490; Arno, 150; Tiber, 210; Po, 450; Adige, 250; Vardar, 200; Struma, 250; Maritza, 320.

(7.) *Flowing into the Black Sea* :—Danube, 1630 miles; Dniester, 700; Dnieper, 1200; Kouban, 480.

(8.) *Flowing into the Sea of Azov* :—Don, 1100 miles.

3. The **Caspian River System** of Europe includes those rivers which drain central and eastern Russia and Caucasus, of which the principal are the Volga (2200 miles), Kouma, and Terek.

If the number of the rivers of Europe that fall *directly* into the Arctic and Atlantic Oceans be compared with the number entering the Baltic, Mediterranean, Black Sea, and Caspian, it will be seen that a greater number discharge their waters into inland seas than into the open ocean. Many of them have their origin in high mountain districts, at considerable elevations above the level of the sea. This is the case with the Rhine and the Rhone, both of which rise in the snow-covered Alps. The rivers of Spain and Portugal, again, derive their waters from the high regions in the interior of the Spanish peninsula. But this is not uniformly the case with rivers, some of which (and those among the most considerable) rise in nearly level plains, and at only a trifling height above the sea. The source of the Volga is in the midst of the Great Plain, at a height of little more than 600 feet.

Sources of European Rivers.—The following derive their waters from the *Alps* :—the Rhine, Rhone, Po, and Adige. The *Apennines* contain the sources of the Tiber and the Arno. The *mountains of Germany*

¹ The student would do well to examine a good *physical* map of Europe (that in the "Training College Atlas" is specially recommended, as being remarkably accurate and distinct), carefully noticing the sources of each river and its tributaries, the courses of the main stream and principal affluents, and the limits and mutual relations of the great

river-basins of Europe. The actual extent and relative proportion of land drained by the rivers in each system, may be easily seen if the extreme *sources* of the rivers named as belonging to each be carefully marked on the map, and connected by lines along the "line of heights" which constitute the "water-parting" of the system.

give rise to the following:—the Danube, Elbe, and Weser. The three following have their sources among the *Carpathian Mountains*:—the Dniester, Oder, and Vistula. The *Pyrenees* contain the source of the Garonne. The other *mountain-chains and highlands of the Spanish peninsula* give rise to the Minho, Douro, Tagus, Guadiana, and Guadalquivir. The *mountains of Central France*, with the adjacent plains of that country, contain the sources of the Loire, Seine, and Meuse. The *Scandinavian Mountains* (Dovrefield, &c.) give rise to the Tornea, Lulea, Pitea, Umea, Indala, Dal, Glommen, and Göta. The river Ural rises in the *Ural Mountains*. The river Kouban rises in *Mount Caucasus*. The following rivers originate in the *great lowland plain of Europe*:—the Volga, Don, Dnieper, Southern Dvina, Niemen, Northern Dvina, and Petchora.

LAKES.—The names of the principal lakes, with their area, elevation above the sea-level, and the countries in which they are situated, are as follow:—

Lake.	Area in Square Miles.	Elevation in Feet.	Situation.	Lake.	Area in Square Miles.	Elevation in Feet.	Situation.
Ladoga, . .	6330	49	Russia.	Geneva, . .	240	1230	Switzerland.
Onega, . .	3280	236	Do.	Constance, .	228	1299	Do.
Salma, . .	2000	...	Do.	Neufchatel, .	115	1437	Do.
Peipous, . .	1250	96	Do.	Lucerne, . .	99	1430	Do.
Enars, . .	1200	405	Do.	Zurich, . .	70	1332	Do.
Bieleo, . .	420	...	Do.	Garda, . .	183	320	Italy.
Ilmen, . .	390	95	Do.	Maggiore, . .	152	678	Do.
Wener, . .	2136	144	Sweden	Como, . .	66	684	Do.
Wetter, . .	840	288	Do.	Windermere, .	11	116	England.
Maelar, . .	700	3	Do.	Ulleswater, .	6	318	Do.
Milsen, . .	300	420	Norway.	Lomond, . .	45	22	Scotland.
Balaton, or } Platten See, }	250	500	Hungary.	Erne, . .	57	150	Ireland.
				Killarney, .	10	68	Do.

The *Caspian Sea*, which lies on the borders of Europe and Asia, is really a vast lake—so great in size as to deserve the appellation of sea. Its water, moreover, is salt, like that of the open sea. Even small lakes, however, which, like the Caspian, have *no outlet* for their waters, are usually salt. But the water of lakes in general is sweet and fresh. The current which is produced by the issue of a running stream from the lower end of a lake tends to preserve this freshness. A great many lakes (indeed, the greater number) both receive and discharge a running stream.

Most of the European lakes occur in the courses of rivers; the river entering the lake at the upper end of its basin, and re-issuing at its lower extremity. The lake of Geneva, in Switzerland, offers an example of this in the case of the river Rhone; as does the lake of Constance (in the same country) in the case of the river Rhine. The Rhone enters the upper extremity of the lake of Geneva, as the Rhine does that of the lake of Constance; and in each instance the stream re-issues from the lower end of the lake.

The lakes situated in the *south of Europe* occur within mountainous tracts of country, and are hence surrounded by very varied scenery—often in the highest degree beautiful. Those that belong to *northern Europe* lie mostly in the neighbourhood of the Baltic Sea, and are generally within *level regions*.

EXAMINATION QUESTIONS.

1. Name the principal mountain-ranges of Europe.
2. In what countries are the following mountain-chains:—the Apennines, the Balkan Mountains, the Pyrenees, the Sierra Nevada, the Carpathian Mountains, the Dravafeld, and the chain of Findus? What are their average heights?
3. Name the principal active volcanoes of Europe.
4. What and where are the mountains of Auvergne?
5. Mark out on the map the general extent of the great lowland-plain of Europe, naming the countries that fall within its limits.
6. Point out on the map to the following:—the plain of Lombardy, the plain of Langue-doc, the plain of Hungary, and the plain of Bohemia.
7. What are the main features in the hydrography of Europe?
8. What is the extent of land drained into (a) the Atlantic and Arctic Oceans, and (b) into the White Sea, Baltic Sea, Mediterranean, Black Sea, and the Caspian Sea?
9. How may the rivers of Europe be classified?
10. What rivers flow into (1) the White Sea, (2) the Arctic Ocean, (3) the Baltic Sea, (4) the Caspian Sea, and (5) the Mediterranean?
11. Which of the rivers of Europe flow into (1) the Black Sea, (2) the Sea of Azov, and (3) the North Sea?
12. What rivers flow into the English Channel?
13. What rivers of Europe have a direct course into the Atlantic Ocean?
14. Which among the rivers of Europe rise in (1) the Alps, (2) the Apennines, and (3) the mountains of Germany?
15. In what mountains do the following have their origin:—the Garonne, Vistula, Tagus, Dniester, Kouban, and Ural?
16. Name the rivers that rise in the great lowland-plain of Europe.
17. Name and give the area and elevation of the principal lakes in (1) Russia, (2) Scandinavian peninsula, (3) Switzerland, (4) Italy, and (5) Hungary.
18. What is the extent and elevation of the five principal among the lakes belonging to the British Islands?
19. By what peculiarity are the waters of the Caspian Sea distinguished?
20. What distinguishing feature (as to situation) is there between the lakes of southern Europe and those that belong to its more northerly latitudes?

CLIMATE.—Nearly the whole of Europe falls within the north temperate zone. The small portion lying to the northward of the arctic circle does not comprehend more than one-seventeenth part of the entire continent. Upon the whole, therefore, the climate of Europe is distinguished by its freedom from the extremes of heat and cold to which other divisions of the globe are subject.

There is, however, considerable difference between the climate experienced in the north of Europe, and that which characterises its southerly regions—between the cool atmosphere that is found upon the shores of the Baltic and the coasts of the Atlantic, and the warmth that belongs to the lands bordering the Mediterranean Sea. *There is a gradual diminution of heat in passing from south to north, or from lower to higher latitudes.* In other words, the countries of southern Europe are hot, those of middle Europe moderately warm, its more northerly regions cool, and the extreme north intensely cold. This is in accordance with the general laws by which climate is regulated.

1. *The hottest parts of the globe are those to which the sun is vertical,*¹ and the amount of heat which the sun's rays communicate becomes gradually lessened as they are received in a direction which is more and more slantwise, or oblique.

Hence the greater heat of countries which are situated within the tropics, and which receive the burning rays of the mid-day sun from directly overhead. With every excessive parallel of latitude in the temperate zones, the angle at which the rays of the mid-day sun meet the earth becomes farther removed from the perpendicular, and the cold is proportionately increased.

¹ It is only within the torrid zone that the sun is ever perfectly vertical. The tropics, it will be remembered, mark the limits, north

and south of the equator, of the sun's apparent yearly path in the heavens.

2. But the amount of solar heat also varies greatly with the situation of the sun to the north or to the south of the equator—that is, with the sun's *declination*.¹

At the period of our midsummer, the mid-day sun reaches a much higher place in the heavens than at the opposite season of the year; and his rays hence give to us a greater amount of heat. The sun's declination—which is always marked by his meridian (or mid-day) place in the sky—varies from day to day, reaching its extremes with the sun's passage from the northern to the southern tropic, or from our midsummer to our mid-winter. So also does the number of hours during which the sun is above or below the horizon—that is, the respective length of day and night—vary from day to day. At all places in the northern hemisphere, the longest day is when the sun has reached his extreme northern declination, or is over the tropic of Cancer; and the shortest day occurs when the sun is at the opposite extreme of south declination. Precisely the reverse is the case in the southern half of the globe. *There*, the tropic of Capricorn is the summer, and the tropic of Cancer the winter, tropic.

3. During the intervals of the sun's passage between the summer and winter tropics, the respective length of the days and nights undergoes a progressive change, and this change is more marked in high than in low latitudes—that is, it becomes greater as we recede farther from the neighbourhood of the equator towards the poles.

While the sun is passing from the tropic of Cancer towards the southern hemisphere, the *days* (that is, the hours of daylight, or the period during which the sun is above the horizon),² are decreasing in length at all places within the northern half of the globe, and the *nights* (or hours of darkness) are increasing in duration. With the returning course of the sun from the line of the winter tropic toward the northern sky, the days (at places within the northern hemisphere) continually increase in length, and the hours of darkness undergo a corresponding decrease.

4. The long days and short nights of the northern summer, and the reverse conditions (long nights and short days) of the opposite season, are a material element in the climates of European countries, but are of less importance in the extreme south of Europe than in its higher latitudes, for *there* the difference between the extreme length of the long days of summer and the short days of winter is much less than it is farther north.

This difference becomes greater with each succeeding degree of latitude. At Naples or at Lisbon the difference between the length of the longest and shortest days is not more than 6 hours; at London it amounts to nearly 9 hours. In the Shetland Islands the difference becomes increased to nearly 13 hours; and the same at Stockholm and St. Petersburg, which are nearly in the same latitude as the Shetland Islands. Still farther north, under the line of the arctic circle, the longest day and the longest night are each of exactly 24 hours' duration. Beyond the arctic circle the difference becomes yet greater, the summer sun remaining continuously above the horizon for a

¹ *Declination* is the angular distance of the sun's place in the heavens from the line of the equator, and is expressed (like latitude) in degrees, minutes, and seconds. It corresponds, in astronomy, to the word *latitude* in reference to places upon the earth's surface. The greatest solar declination is $23\frac{1}{2}$ degrees (or more exactly, $23^{\circ} 28'$), since, when the sun has reached that distance upon either limit of the torrid zone, he returns on his course towards the line of the equator and the opposite tropic. At its extreme north declina-

tion, the sun is vertically over the tropic of Cancer; at the like place, in the southern half of its course, over the tropic of Capricorn. The former constitutes, to the inhabitants of the northern half of the globe, the summer tropic; the latter, the winter tropic.

² The horizon is the line marking—in an open plain, or on the seashore, where the view is unimpeded by any intervening object—the farthest limit of vision, where the sky appears to meet, and rest upon, the earth or the sea.

period of several successive days, while during the winter the sun does not become visible (remaining beneath the horizon) for a correspondent time. Summer in these high latitudes embraces therefore a brief period of continuous daylight, while the opposite season includes a period of corresponding darkness.

5. During the whole time that the sun is above the horizon at any place, his rays communicate heat to the earth.

(1.) *In the south of Europe*, where (so far as this portion of the globe is concerned) there is least difference between the length of the days and nights throughout the year, the solar heat is more equally distributed, and the difference between the summer and winter temperatures is accordingly less marked than is the case farther north.

(2.) *In the middle of Europe* it gradually becomes more considerable, and the opposite seasons of summer and winter present more striking contrasts of heat and cold. The intervening seasons of spring and autumn, however, make the transition from the one extreme to the other gradual, and indeed, measured merely from day to day, almost imperceptible.

(3.) *In the north of Europe* the summer becomes a brief period of great heat (due to the long-continued presence of the sun above the horizon), the winter a prolonged and more definitely marked season of cold. The intervening seasons—spring and autumn—are periods of mere rapid transition from heat to cold, or the reverse: as the long days of summer approach, the heat rapidly increases, and the icy covering of the ground gives place with startling rapidity to the verdure which accompanies the warmth of prolonged sunshine. Summer as quickly passes, with returning periods of lengthening darkness, into the gloom of an arctic winter.

(a.) The *south of Europe* is thus a region of comparatively equable temperature, with seasons which are less distinguished by the heat and cold of summer and winter, or the intervening terms of spring and autumn, than by the alternate recurrence of periods of rain and drought.

(b.) The countries of *middle and western Europe* enjoy a climate in which the summer and winter are marked by greater contrasts of heat and cold than is the case farther south, but in which the spring and autumn constitute seasons of gradual transition, and soften the passage from the one extreme to the other.

(c.) The countries of *northern* (and also of *eastern*) *Europe* exhibit, between their summer and winter, differences which are yet more strongly contrasted. Spring and autumn are there of brief duration; towards the extreme north, indeed, they can hardly be said to exist. The year is divided into a short summer and a long winter. The former is, for a brief time, a period of great heat, as the latter is one of intense cold. *The extremes of difference increase with the latitude*, until, beyond the arctic circle, the year consists of a long winter night, alternating with a short season of continuous daylight and intense heat.

6. The proximity of the ocean has a powerful effect upon climate.

(1.) Thus the countries of *western Europe* enjoy conditions of climate which possess many advantages over those belonging to the east of Europe in similar latitudes. They have a more equable distribution of heat throughout the year. That is, they enjoy milder summers and more temperate winters than is the case in eastern Europe. This is a consequence of their position relatively to the Atlantic Ocean.

The effect produced by large bodies of water upon climate is always to equalise it. Water preserves, under all circumstances, a more equal temperature than land. The sea never becomes so hot, under the influence of mid-day heat, as the land does; and when the heating influence is withdrawn (as at night) it never becomes so cold. In like manner, the heat of summer and the cold of winter produce less extreme effects upon the waters of the ocean than they do upon the large expanses of land which belong to either continent. Countries situated near the ocean share in the advantages of this more equable distribution of the solar heat. The vapours that float over the Atlantic Ocean communicate their moderate warmth (and also their moisture) to the atmosphere of the adjacent lands. The generally mild winters of the British Islands, and also those of the Norwegian coast, are due to this cause.

(2.) The *eastern parts of Europe*, on the other hand, are far removed from oceanic influences, and are, moreover, open and unsheltered. No mountain-chains protect them from the piercing colds of northerly winds. Hence their summer is one of intense heat, and their winter a season of still intenser cold. Moscow and Edinburgh are situated in nearly the same latitude, but they possess widely different climates.

7. The comparative elevation of the ground has a great deal to do with climate, for as we rise above the average level of the earth's surface, the air becomes progressively colder.

This is found on climbing to the top of any hill, or even in reaching the higher portions of any moderately-elevated land. The tops of very high mountains are nearly always covered with unmelting snow—a consequence of the excessive cold of the air in those elevated regions. *The higher portions of mountainous countries are therefore exposed to greater cold than their lower plains.* High plateaus, or table-lands, for a like reason, are subject to extremes of temperature.

8. The climates of countries upon opposite sides of the same mountain-chain are often widely different.

The Alps, in the south of Europe, are an example. Their slope, on the side of Switzerland, is to the northward; upon that of Italy, to the southward. They serve in some degree to shelter Italy from the cold winds of the north.

Rainfall.—A greater quantity of *rain* falls in the south of Europe than in its middle portions, and more in its middle latitudes than farther north.

Warm countries, in general, have more rain than cold countries. More rain falls also in the west of Europe than in the east—a consequence of its proximity to the Atlantic Ocean, the winds blowing from which are abundantly charged with moisture. Along the whole western side of Europe (including the British Islands), westerly winds are generally accompanied by rain, while easterly winds—blowing from over large tracts of land—are dry.¹

The average number of days in the year upon which rain occurs is fewest in the south of Europe, and increases towards the north. There are more rainy days in the year in the west of Europe than in any other portion of its extent, and there is also a more generally moist atmosphere.

¹ All the moisture contained in the air, and precipitated upon the earth in the form of rain, hail, snow, &c., is originally derived (by the process called *evaporation*—that is, the conversion of water or any fluid into vapour) from the sea, or else from surfaces of inland water. Countries near large bodies of water are hence more like to possess a moist atmosphere than countries lying far inland. The winds carry the moist vapours of the sea over the adjacent lands, when they become condensed, and are discharged in the form of rain.

NATURAL PRODUCTIONS.—The natural productions of the earth form three great classes—*mineral, vegetable, and animal.*

1. To the first belong the different metals (gold, silver, copper, iron, &c.), and the various mineral substances, including coal, salt, the various earths, as well as marbles, building-stones, and slates.

2. The second class includes all the productions of the vegetable world, from the largest trees of the forest to flowers and plants of the minutest size, as mosses and lichens.

3. The third embraces the infinite varieties of animal life—the inhabitants of the land, sea, and air alike.

In the last division, the lowest place is occupied by the insect world; next in order come fishes, and then, successively, reptiles, birds, and the various land animals, the highest of all being man himself.

It is the characteristic of Europe to possess among its natural productions an unusually large proportion of such minerals, plants, and members of the animal kingdom as are most useful to civilised man. Some of the plants and animals that are now abundant in Europe have been brought from other parts of the globe, but a large proportion are native to its soil. Other divisions of the earth possess in greater quantity the precious metals, display a vastly richer abundance of fruits and flowers, with trees of more luxuriant growth and forests of wider expanse; or are richer in the various tenants of the wilderness and the air, in the size and powers of their wild animals, and the brilliant plumage of the feathered tribes. *But no other part of the earth equals Europe in the abundant possession of what is most capable of supplying, with the due exercise of industry, the wants of civilised man.*

I. Minerals.—The following metals and minerals occur in various parts of Europe:—

Gold, in Hungary and Russia.

Silver, in Hungary, Germany, and also in Norway and Spain.

Platinum, in Russia.

Quicksilver, in Spain, Austria, Bavaria.

Iron, in Great Britain, Belgium, France, Russia, Sweden and Norway, and various parts of Germany.

Copper, in Great Britain, Russia, Sweden and Norway, Hungary, Germany, Spain.

Lead, in Great Britain, Spain, Austria, Hungary, Germany, and France.

Zinc, in Great Britain, Belgium, Germany.

Tin, in England and Spain.

Coal, most abundantly in Great Britain and Belgium, in smaller quantities in France, Germany, Russia, Sweden, and Hungary.

Salt, in Russia, Austrian Poland, England, France, Spain, Portugal, Germany, Italy, &c.

II. Vegetables.—All the food-plants that are characteristic of the temperate zone thrive in this division of the globe.

1. *Wheat, barley, rye, oats*, are grown abundantly over the larger portion of Europe, and *maize* (or Indian corn) in the more southerly division of the continent.

2. Among fruits, the *apple, pear, plum, cherry, currant*, and *gooseberry* belong to the middle latitudes of Europe; the *vine* to its more south-

wardly regions; the *orange*, *lemon*, *citron*, and *fig* to the shores of the Mediterranean.

3. Of trees, the countries lying to the south of the Alps and the Pyrenees are distinguished by the abundance of evergreens; while the forest-growth of middle and northern Europe is chiefly *deciduous*,¹ embracing such trees as the *oak*, *ash*, *beech*, *elm*, *larch*, *willow*, *alder*, *maple*, *sycamore*, and the various *pin*es and *firs*.

III. Animals.—The animals of Europe may be divided into six great classes as follows:—

1. **Wild Animals.**—Many of the wild animals which were once native to Europe have disappeared, while others have greatly diminished in number.

The *wild boar* and the *bear*, as well as the *wolf*, were formerly common in the forests of the British Islands, but have been wholly exterminated thence. The forests of Germany, and the wooded tracts that skirt the Alps and the Pyrenees, still harbour, however, the two former; and the wolf is yet abundant in many parts of the continent—as in the forests of Russia, France, and Germany. The *wild ox* still exists in the forests of Russia. The *red-deer*, the *fallow-deer*, and others of the same tribe, belong to the lower latitudes of middle Europe. The *chamois* and the *ibex* (animals of the goat kind) are native to the high mountain-region of the Alps, but they have become scarce under the continued pursuit of the hunter, and the latter is almost extinct.

2. **Domestic Animals.**—The vast number of domestic cattle that are reared in Europe—either as the food of man, or for various other uses—is the most striking feature in the zoology of Europe.

The *sheep*, *ox*, *pig*, and *goat*—the *horse*, *ass*, and *dog*—abound in every part of Europe; most of them are, indeed, the uniform companions of man, wheresoever his wanderings extend. The *reindeer* supplies to the inhabitants of the extreme north of Europe (Lapland) the place of other domestic quadrupeds.

3. **Birds.**—The variety of birds is great in nearly every European country, except the extreme north.

The web-footed tribes (*geese*, *ducks*, &c.) are most numerous in high latitudes. The *stork*, the *crane*, the *heron*, the *pelican*, the *spoonbill*, and the *flamingo* belong to the west and the south of Europe. The *vulture* and *eagle* tribe are most numerous in the high mountain-region of the south—that is, the Alps and Pyrenees. The *owl* is found in nearly every part of the continent.

4. **Reptiles.**—Europe is singularly free from venomous reptiles.

Lizards are common in the countries that border on the Mediterranean, but are perfectly harmless. The *chameleon* occurs in Spain.

5. **Fish.**—Fish of nearly every variety abound in the seas and rivers of Europe, and many of them are extensively used as food of man.

(1.) The fisheries of the Mediterranean, Black, Baltic, and Caspian Seas are all highly valuable. The *turney*, which is the largest of edible fish, is found in the Mediterranean.

¹ Deciduous trees are those which cast their leaves annually (from the Latin *decidere*, to fall).

(2.) The seas that surround the British Islands contain a vast abundance of such fish as the *cod*, *herring*, *mackerel*, *turbot*, and *pilchard*, besides the *crab*, *lobster*, *prawn*, and many others. The *salmon* abounds in the rivers of northern and western Europe, as it also does in the Volga and other streams of eastern Russia.

6. **Insects.**—Of insects, the kinds that are annoying and hurtful to man are, happily, comparatively scarce in this portion of the globe.

The most useful member of the insect tribe—the common *honey-bee*—is reared in most European countries. The *silkworm* is numerous reared in the south of Europe—in Italy, Spain, Switzerland, and the south of France. The *scorpion* is found in the south of Europe. The insects which are familiarly known as occurring in our own country (and which are more or less common throughout the globe), as flies, &c., do not require to be specially mentioned.

INHABITANTS.—The population of Europe—amounting to a total of about 320,000,000—consists, for the most part, of what is known distinctively as the *Caucasian* (or white) variety of mankind. Nine-tenths of the whole belong to this stock of nations.

There are differences amongst them, the result of diversity of climate, and perhaps of other causes. The nations of southern Europe—the Spaniards, Portuguese, Italians, and Greeks—are distinguished by their darker skin and their generally slender frame from the people who are native to the middle and northerly portions of the continent. Their robust frames, fair complexions, their light eyes and hair, are among the distinguishing marks of the people of middle and northern Europe.

Four leading divisions of the Caucasian family are marked—the Celtic, the Germanic or Teutonic, the Romanic or Greek-Latin, and the Slavonian.

1. The **Celtic race** is now almost limited (as a pure race) to Wales, Ireland, the Highlands of Scotland, and Brittany. Formerly the Celtic peoples inhabited the whole of western Europe from Spain to Denmark, but were gradually superseded by the Germanic or Teutonic people.

2. The **Germanic or Teutonic race** is spread over the middle, north-western, and many of the western countries of Europe, and form the predominant people in Germany, Norway, Sweden, Denmark, Holland, Belgium, and Great Britain.

3. The **Romanic or Greek-Latin race** is not by any means as pure as any of the other races, and is probably an admixture of the aboriginal Celtic race, with Roman and German invaders. The Romanic group occupies Spain, Portugal, France (except Brittany), Italy, Roumania, and Greece.

4. The **Slavonic race** occupies nearly all eastern Europe, predominating in Russia, Poland, Bohemia, Servia, and Bulgaria.

Besides the above races, to which most of the peoples of Europe belong, there are several minor branches of the **Mongolian race**, the principal being the *Turks* in Turkey, the *Magyars* in Hungary, the *Finns* and *Laplanders* in the north of Europe, the *Samoiedes* along the north-eastern shores of the continent, and the *Kalmucks* in the steppes of south-east Russia.

Two other distinct nations, the Jews and the Gipsies, are found scattered all over Europe. The *Jews* are of the Caucasian race, and in the Middle Ages were cruelly persecuted in almost every country in Europe, except Poland. The *Gipsies* are a wandering race; their origin is unknown.

LANGUAGE.—The languages of Europe, with the exception of the Turkish and other Turanian dialects, belong to the *Aryan* or Indo-European family, and may be classed under four principal headings, broadly corresponding with the four great races of the continent, viz., the Celtic, the Teutonic, the Latin or Greek-Latin, and the Slavonic.

1. Dialects of the *Celtic* language are still spoken in the west of Ireland, the north and west of Scotland, Isle of Man, Wales, and Brittany.
2. The *Teutonic* family comprises the English, Lowland Scotch, Norwegian, Swedish, Danish, Dutch, and German languages.
3. The *Greek-Latin* or Romanic languages are spoken in France, Spain, Portugal, Italy, and Greece.
4. The *Slavonic* language, spoken in Russia, Servia, Bulgaria, Bohemia, Moravia, and Poland.

The density of population in the different countries of Europe depends not so much on a natural capacity (by reason of fertile soil and genial climate) of supporting a large population, as on the energy and industry of the inhabitants.

Thus some countries, like Turkey, Spain, &c., although naturally fertile and capable of supporting a dense population, are yet inferior as regards density of population to other countries, like Holland, Belgium, and parts of England and Germany, which are not naturally fertile. The average density of population in each country in Europe is shown in the table on the next page.

RELIGION.—Nearly all the nations of Europe profess Christianity, in one or other of its three forms. The Protestants predominate in the Teutonic countries; Roman Catholics in the Romanic countries, except Greece; and the Greek Church in the Slavonic countries and Greece.

Besides these three forms of Christianity, the Turks profess *Mohammedanism*, while the Samoiedes and Lapps are *heathens*. The Jews profess *Judaism*.

* * Of the 320 millions of Europeans, 150 millions are Roman Catholics, 80 millions belong to the Greek Church, 75 millions are Protestants, while 10 millions are Mohammedans or heathens, and 5 millions are Jews, Gypsies, &c.

EDUCATION.—All the great nations of Europe are more or less advanced in education, and the higher classes of even the most deficient in national culture are generally well educated. Schools, colleges, and universities are found in every European state, and are well attended.

As regards general education the Germanic peoples rank first, the Romanic nations second, while the mass of the Slavonic peoples are almost totally illiterate. The average number of the population unable to read and write in the various countries is estimated to be—in England, 20; France, 35; Italy, 64; Hungary, 85; and Russia, 88 per cent.

GOVERNMENT.—The government of every state in Europe, except France and Switzerland, is *monarchical* in form, and is *despotic* in Russia and Turkey, but *limited* in the United Kingdom and other countries. France and Switzerland (and the small states of San Marino and Andorra) are *republics*.

POLITICAL DIVISIONS.—The following is a list of the principal countries of Europe, together with their area and population, according to the *latest* official returns :—

Countries.	Area in Square Miles.	Population.		No. of Inhabitants per Square Mile.
		Date.		
1. Great Britain and Ireland, ¹	120,879	1871	31,783,700	262
2. France, ...	204,096	1876	36,905,788	180
3. Belgium, ...	11,373	1879	5,536,654	487
4. Holland, ...	12,680	1879	3,981,887	314
5. Switzerland, ...	15,991	1877	2,776,035	173
6. Germany, ...	208,744	1875	42,727,260	204
7. Austro-Hungary, ...	240,943	1878	37,700,000	156
8. Denmark, ²	15,218	1878	2,070,400	186
9. Norway and Sweden, ...	293,849	1879	6,397,754	21
10. Russia in Europe, ...	2,074,686	1870	73,563,118	35
11. Turkey, ³	130,571	1878	8,971,000	68
12. Montenegro, ...	1,975	1878	286,000	144
13. Servia, ...	18,787	1879	1,670,000	88
14. Roumania, ...	48,307	1878	5,290,000	109
15. Greece, ...	19,353	1879	1,679,775	86
16. Italy, ...	114,406	1876	27,769,475	242
17. Spain, ⁴	195,775	1879	16,623,389	84
18. Portugal, ⁵	35,812	1879	4,745,124	132

The above countries are *politically* divided into

1. **Empires** (4): Russia, Germany, Austria, and Turkey.
2. **Kingdoms** (10): Great Britain and Ireland, Norway and Sweden, Denmark, Holland, Belgium, Portugal, Spain, Italy, Greece, and Roumania.⁶
3. **Republics** (2): France and Switzerland (and the minor protected republics of San Marino and Andorra).
4. **Principalities** (5): Montenegro, Servia, and the minor principalities of Luxembourg, Monaco, and Liechtenstein.

The countries of Europe may be also arranged as follows, according to their "rank" or power :—

1. Great Britain, Germany, France, Austria, and Russia. These constitute the "five great powers" of Europe.
2. Italy, Norway and Sweden, Spain.
3. Turkey, Belgium, Holland, Denmark, Portugal, Switzerland, and Greece.

EXAMINATION QUESTIONS.

1. What is the distinguishing characteristic of the *climate* of Europe?
2. Compare the kinds of climate experienced in the south, middle, and north of Europe.
3. Why are countries within the tropics hotter than other parts of the world?
4. Within what zone does the greater part of Europe fall?
5. Why do countries receive less direct

¹ Estimated population, 1880, 34,595,043.

² Including the Farø Islands.

³ Including Bulgaria, Eastern Roumelia, and Bosnia.

⁴ Including the Balearic Islands and the Canaries.

⁵ Exclusive of colonies.

⁶ Proclaimed a kingdom March 26, 1881.

heat from the sun in proportion as they are farther removed from the equator?

5. What is meant by the sun's *declination*? and how does it affect the respective length of the days and nights in either hemisphere?

6. In what way does this affect the climate of the countries of northern Europe?

8. In what portion of Europe is the transition between the different seasons (a) most gradual, (b) most strongly marked?

9. What are the chief climatic differences that belong to the countries of (a) southern Europe, (b) western Europe, and (c) those situated towards its eastern limits?

10. Explain the kind of influence which the sea generally exerts upon climate.

11. Moscow and Edinburgh are two cities situated at nearly the same distance from the equator, but they possess very different climates. How do you account for this?

12. In what way do mountain-chains and plateaux affect climate?

13. Switzerland and Italy—which lie respectively to the north and south of the Alps—have very different climates. How do you account for this?

14. In which parts of Europe is rain most abundant?

15. What three great classes of objects do the natural productions of the earth include?

16. By what characteristic is Europe distinguished in regard to its natural productions?

17. In what countries of Europe do the following metals occur:—gold, silver, platinum, quicksilver, iron, copper, lead, zinc, and tin?

18. In what countries of Europe do coal and salt occur?

19. Among the various food-plants, name some of the grains that are most abundantly cultivated in Europe.

20. Of fruits, name those that charac-

terise (a) its middle latitudes, and (b) its southern regions.

21. What is the difference between the trees that belong to the countries situated on the Mediterranean shores, and those that are native to middle and northern Europe?

22. What wild animals, formerly native to the British Islands, have been exterminated thence?

23. In what countries of Europe is the wolf still found?

24. Name the domestic animals of Europe.

25. In what part of Europe is the reindeer, chamois, and ibex found?

26. Name some of the birds that are characteristic of Europe, and say to what regions they more particularly belong.

27. The fish that are found in the seas and rivers of Europe are of great commercial value. Name some of those that are found in the British seas.

28. Of insects, there are two which are extensively reared in Europe, and which serve valuable purposes to man. What are they?

29. To what (in round numbers) does the population of Europe amount?

30. To what race of mankind do the bulk of the inhabitants of Europe belong?

31. What distinction (in external appearance) is there between the nations of southern Europe, and those of its middle and northerly regions?

32. Name the four great divisions of the European family of nations, and what countries do they occupy?

33. Compare the countries of Europe as regards density of population.

34. Classify the languages spoken in Europe.

35. What forms of religion prevail in Europe?

36. Mention some particulars relative to (a) education and (b) government of European states.

37. Write out a complete list of the countries of Europe.

THE BRITISH ISLES.

THE BRITISH ISLES consist of Great Britain, Ireland, and numerous smaller adjacent islands, situated in the Atlantic Ocean, off the western side of the European continent.

1. **Great Britain** consists of England, Wales, and Scotland, and is the largest island in Europe, being 600 miles in length, and having an area of nearly 80,000 square miles.

2. **Ireland** lies to the west of Great Britain, and is divided from it by the Irish Sea. Great Britain is nearly *three times* the size of Ireland, the area of which is 32,500 square miles.

3. Of the numerous islands and islets adjoining Great Britain and Ire-

land the principal are the *Isle of Wight*, on the south; the *Orkney and Shetland Islands*, on the north; the *Hebrides*, off the west coast of Scotland; *Anglesey* and the *Isle of Man*, in the Irish Sea; *Achil* and *Aran Islands*, off the west coast of Ireland.

England, Wales, Scotland, Ireland, and the adjacent islands, constitute politically the **United Kingdom of Great Britain and Ireland**.

Wales, Scotland, and Ireland were formerly distinct countries from England. The conquest of Ireland commenced in 1170, and virtually ended when Limerick was surrendered in 1691. Wales was conquered in 1282, and formally annexed in 1536. The crowns of England and Scotland were united in 1603; in 1707 England and Scotland were united under the same parliament; and in 1801 the parliaments of Great Britain and Ireland were united, hence the name, "United Kingdom of Great Britain and Ireland."

The United Kingdom of Great Britain and Ireland, and the numerous colonies and foreign possessions in all parts of the world, together form the **British Empire**.

The area of the British Empire is nearly 9,000,000 square miles, or nearly one-sixth of all the land of the globe, while the population numbers 295,000,000, or about one-fifth of the total inhabitants of the world. Our Indian Empire alone has a population of more than 200,000,000. The extension and consolidation of the British Empire is without a parallel in the history of the world. Inferior to the Chinese Empire¹ as regards population, and about equal to that of Russia in extent, it is vastly superior to both in wealth, influence, and power.

I. ENGLAND AND WALES.

ENGLAND² AND WALES, which together form the southern division of Great Britain, constitute by far the most important portion of the British Islands.

Although in times long past Wales was a distinct country from England, yet the two are now so inseparably connected, and have been so long under the same government, that it is most convenient to describe the two under one head, and to speak of them as a single country.

England makes nearer approach to the mainland of Europe than any other portion of the British Islands. The Strait of Dover, which divides the shores of England from those of France, is only twenty-one miles across.

BOUNDARIES.—ENGLAND is bounded on the *north* by Scotland; on the *east* by the German Ocean³ (or North Sea); on the *south* by the English Channel; ⁴ on the *west* by the Irish Sea,⁵ the principality of Wales, and the Atlantic Ocean.

¹ Estimated population 400 to 500 millions.

² England, *Angle-land*, the land of the "Angles," the most numerous of the Saxon invaders of Britain. Anciently *Albion*, so called from the white cliffs of Kent. Cf. the "Alps."

³ German Ocean or North Sea, 700 miles long; greatest breadth, 430; area, 270,000 square miles. Deep in the north between Scotland and Norway, shallow between England and Holland. Numerous shoals and sand-banks, the largest being the *Dogger Bank*, 300 miles long. Between the Kentish coast and the *Goodwin Sands* is the roadstead of

the "Downs." Various kinds of fish, cod, herring, mackerel, &c., abundant; valuable fisheries.

⁴ In the English Channel (Fr. *La Manche*) the depth increases from 200 feet off Beachy Head to 380 off Land's End. The tide wave increases in height as it proceeds eastwards, being 16 feet at Plymouth to 21 at Brighton, and sometimes 60 in the Bay of St. Malo.

⁵ Irish Sea, depth between 200 and 400 feet, communicates with the Atlantic on the north by North Channel, and on the south by St. George's Channel. Greatest breadth, 130 miles.

WALES is enclosed on three sides—the *north*, *west*, and *south*—by the waters of the Irish Sea, St. George's Channel,¹ and the Bristol Channel; on the *east* it adjoins England.

England is divided from

1. Scotland by the Tweed, Cheviot Hills, and the Solway Firth.
2. Ireland by the Irish Sea and St. George's Channel.
3. France by the English Channel and Strait of Dover.
4. Belgium, Holland, and Germany by the North Sea.

EXTENT.—England embraces an area of 50,923 square miles, and Wales, 7397. Total area, 58,320 square miles. Taken together, England and Wales are but a small country, equal in magnitude to scarcely more than a nine-hundredth part of the lands upon the earth's surface.

The *greatest length* of England, from Berwick to the Lizard, is 423 miles.

The *mean length*, along the meridian of 2° west, is 360 miles.

The *greatest breadth*, from Lowestoft Ness to Land's End, is 364 miles.

The *least breadth*, from the Tyne to Solway Firth, is 60 miles.

The *average breadth* south of the Wash is 200 miles, north, 120 miles.

In *shape* England is triangular, the south coast being the base and Berwick-on-Tweed the apex.²

COASTS.—The *western* coasts of England are more irregular and elevated, and exhibit a greater number of capes and inlets, than either the *southern* and the *eastern* coasts.³

A glance at the map of England will show the contrast between the irregular outline of the west coast and the rounded "flowing" form of the east coast. About a third of the former and half the latter consist of cliffs, which are most elevated in Cornwall and Wales. Where the coast is low, it is generally sandy.

1. **CAPIES.**—*On the east*, Flamborough⁴ Head, Spurn Head, Lowestoft Ness, the Naze, and the North Foreland. *On the south*, the South Foreland, Dungeness,⁵ Beachy Head,⁶ Selsea Bill, St. Catherine's Point, St. Alban's Head, Portland Bill, Berry Head, Bolt Head, and the Lizard. *On the west*, the Land's End, Hartland Point, Worms Head, St. David's Head, Great Orme's Head,⁷ Point of Aire, Formby Point, and St. Bees Head.

Flamborough Head, on the Yorkshire coast, is 214 feet high.

From the South Foreland (375 feet) the French coast may be seen.

Beachy Head (564 feet) is the loftiest headland on the south coast.

Great Orme's Head is by far the loftiest, being 673 feet high.

¹ St. George's Channel—50 miles wide between Carnsore Point and St. David's Head.

² This fact may be made use of by the student in drawing the map of England; for if, in addition to the lines of latitude and longitude, a triangle be described by straight lines joining Land's End and the South Foreland, and from each of these points to Berwick, the sinuosities of the coast may be much more easily and accurately drawn.

³ The western and south-western coasts possess several magnificent natural har-

bours. The south-eastern and eastern coasts are rather deficient in this respect.

⁴ Flamborough, probably a "tower or camp of refuge," from A.-S. *flam*, a fugitive; or from the *flames* or *beacon-fires* formerly lit on this headland.

⁵ Dungeness, *danger-ness*, so-called from the numerous shipwrecks off this point; *ness* = nose or headland.

⁶ Beachy Head, corrupted form of Fr. *beau-chef*.

⁷ Great Orme's Head, probably after the Saxon chief's name *Worm* or *Orm*, lit. a serpent.

Lowestoft Ness (119 feet) is the *most easterly* point of England. The **Lizard**¹ is the *most southerly*, and **Land's End** the *most westerly* point; both are in the county of Cornwall.

2. **INLETS.**—*On the east coast*, the Humber, the Wash, and the mouth of the Thames. *On the south coast*, Portsmouth Harbour, Southampton Water, Weymouth Bay, Tor Bay, Plymouth Sound, Falmouth Harbour, and Mount's Bay. *On the west coast*, the Solway Firth, Morecambe Bay, Cardigan Bay, and the Bristol Channel, which last includes Carmarthen Bay, Swansea Bay, and Barnstaple Bay.

(1.) The Humber, 38 miles in length, is the estuary² of the *Ouse* and *Trent*, and is navigable for the largest vessels to Hull.

(2.) The Wash receives the drainage of the "Fen" country, and is shallow throughout.

(3.) Portsmouth Harbour is one of the finest harbours in the world.

(4.) Plymouth Sound is protected by an artificial breakwater a mile long.

(5.) In the Bristol Channel the tide advances rapidly and rushes up the estuary of the Severn as a "bore" or head of water, and rises at Chepstow to a height of 45 feet.

(6.) Milford Haven is the finest natural harbour in England, and is capable of holding all the British navy at one time.

(7.) Solway Firth, noted for its valuable salmon fisheries.

3. **STRAITS and ROADSTADS.**³—*On the east*, Yarmouth Roads, the Downs, Strait of Dover. *On the south*, Spithead,⁴ Solent, and Portland Roads. *On the west*, the Menai Straits.

(1.) The Downs, between the Goodwin Sands and the Kentish coast, form the largest natural "harbour of refuge" in the world.

(2.) Spithead and Solent are the eastern and western portions of the channel that separates the Isle of Wight from the mainland.

(3.) The Menai Straits, between Anglesey and Carnarvonshire, is crossed by a suspension bridge and a tubular railway bridge.

ISLANDS.—The principal are:—Holy Island,⁵ Coquet, Fern Islands, Sheppey,⁶ Thanet, Wight, Scilly Isles,⁷ Lundy, Anglesey,⁸ Holyhead, Bardsey, Isle of Man,⁹ and Walney.

1. Holy Island and Holyhead are islands only at high tide. The latter is connected with Anglesey by two embankments.

2. Anglesey separated from the adjoining mainland by the Menai Straits.

3. Thanet and Sheppey. The former wide passages between these and the mainland are now almost filled up.

4. The Isle of Wight, the "garden of England," is extremely beautiful and fertile, and is separated from the mainland by the Spithead and Solent. Highest elevation, St. Catherine's Hill, 830 feet.

¹ Lizard, Celtic *ard*, a height; the high cape or fort.

² An estuary is a narrow arm of the sea, such as is often formed at the mouth of a river. The word estuary is from the Latin *æstuarium*.

³ By a roadstead, or road, is meant a natural "harbour of refuge" where vessels may ride at anchor safely.

⁴ Spithead, Ger. *spit*, a beak.

⁵ Holy Island, from a celebrated monastery founded by Oswald of Northumbria in 635. Also called *Lindisfarne*.

⁶ Sheppey, Sax. *scēap*, a sheep, and *ey*, an island—"island of sheep."

⁷ Scilly Isles, anciently called the *Cassiterides* or Tin Islands.

⁸ Anglesey, *ea*, an island, and *Angle*, English. Formerly called *Mona*.

⁹ Isle of Man, anciently *Mona*, or *Monapia*.

5. The **Scilly Isles**, 30 miles south-west of Land's End, are 145 in number, of which 6 only are inhabited. Largest island, St. Mary, 10 miles round.

6. The **Ile of Man**, in the Irish Sea, nearly midway between England, Scotland, and Ireland. Hilly; highest point, *Snaefell*, 2004 feet above the sea. Valuable lead mines at Foxdale and Laxey.

. The **Channel Islands**, *Guernsey*, *Jersey*, *Alderney*, and *Sark*, off the coast of Normandy, also belong to England. Climate, warm and moist; soil, fertile. Alderney and Guernsey are celebrated for their fine breed of cows.

MOUNTAINS.—England exhibits generally a gently-sloping or undulating surface, which, however, rises in some places into lofty hills. Wales is chiefly mountainous. The high grounds of England and Wales lie principally upon the western side of the island, forming a succession of elevated regions which stretch nearly from the borders of Scotland to the Land's End, and are seldom far removed from the western coasts. They are naturally divisible into three sections or systems, viz., the *Northern*, the *Cambrian*, and the *Devonian*.

1. The **Northern System** includes the Cheviot Hills, Pennine Range, and the Cumbrian Group.

(1.) The **Cheviot Hills** are on the borders of England and Scotland. Cheviot Peak, in Northumberland, is 2676 feet above the sea.

(2.) The **Pennine¹ Range** extends from the Cheviot Hills to the Peak (in the county of Derby), nearly along the dividing line between the six northern counties, and constitutes the most continuous elevated tract in England. The highest points are :—*Crossfell*,² in Cumberland, 2892 feet, and *Wharfedale*, 2414 feet; *Ingleborough*, 2373 feet, and *Pen-y-gant*, 2273 feet, in Yorkshire.

(3.) The **Cumbrian³ Mountains** form a group in the counties of Cumberland, Westmoreland, and northern Lancashire, near the coast of the Irish Sea. They contain the highest elevation in England :—*Scaw Fell*, situated in the centre of the group, and reaching 3208 feet above the level of the sea; *Skiddaw*, 3022 feet, and *Helvellyn*, 3118 feet, in the same group. The Cumbrian Group encloses the picturesque "English Lake District."

2. The **Cambrian⁴ System** includes all those mountains situated between the basin of the Severn and the Irish Sea, and spread over the greater part of the surface of Wales, reaching in their highest point a greater elevation than any of the English mountains.

Snowdon,⁵ in the county of Carnarvon, 3570 feet above the sea, is the highest; *Cader Idris*,⁶ 2929 feet; *Plinlimmon*, 2469 feet; the *Beacons of Brecknock*, 2910 feet; and many others, are lofty and well-known points.

3. The **Devonian System** includes the hills of Devonshire and Cornwall. They are less elevated, but still impart a varied and often rugged surface to the south-west corner of the island.

Brown Willy, in Cornwall, 1364 feet; *Yes Tor*, 2050 feet; *Cawsand Beacon*, 1792 feet, on Dartmoor in Devonshire; and *Dunkerry Beacon*, 1700 feet, on Exmoor in Somerset, are the highest points in this system.

¹ Pennine, from Celtic; *pen*, a hill.

² Crossfell, Danish; *fel*, a hill.

³ Cumbrian, from *Cumbria*, the old name for Cumberland.

⁴ Cambrian, from *Cambria*, Wales.

⁵ Snowdon, *snow* and *dun* (A.-S.), a hill.

⁶ Cader Idris, Welsh for *Arthur's Seat*.

To the eastward of the above tracts the elevations are much less conspicuous; few points reach more than a thousand feet above the sea-level, and most of them are considerably below that altitude. The following are the most important among these lower heights :—

Names.	Position.	Elevation in Feet of Highest Point.	Names.	Position.	Elevation in Feet of Highest Point.
North York Moors, ¹	Yorkshire.	1489	Cotswold s Hills,	Gloucester,	1134
Wolds, ²	{ Yorkshire and	1057	Mendip Hills, .	Somerset,	1067
Chiltern Hills,	{ Lincolnshire, }		Quantock Hills,	do,	1262
Glee Hills,	{ Buckingham	800	Blackdown Hills,	do,	
The Wrekin, .	{ and Oxford, }	1805	Exmoor, . .	{ Somerset and	1707
Malvern Hills,	{ Shropshire,	1320	Salisbury Plain, ⁴	{ Devon,	400
Clent Hills, .	{ Worcester and }	1444	North Downs, .	{ Kent and Surrey,	1000
	{ Hereford,	1007	South Downs, .	{ Sussex and	800
	Worcester,			Hampshire,	

PLAINS.—The most extensive plains and valleys in England are the following :—the York Plain, the Cumbrian and Cheshire Plains, the Central Plain, the district of the Fens, the Eastern Plain, the Valley of the Severn, and the Valley of the Thames.

1. The **York Plain** is the most extensive in England, and lies between the Pennine Range and the Wolds.
2. The **Cumbrian and Cheshire Plains** lie to the north and south of the Cumbrian Group, on the west side of the Pennine Range. Both are fertile, the latter especially being admirably adapted for grazing.
3. The **Central Plain** varies from 200 to 400 feet above the sea, and extends from the Thames on the south to the Ouse on the north, and the Severn on the west to the Trent on the east.
4. The district of the **Fens**,⁵ which lies round the shores of the Wash, includes parts of the counties of Lincoln, Northampton, Huntingdon, Cambridge, Norfolk, and Suffolk, and forms the lowest and most perfectly level portion of the island. The whole tract has been converted by drainage into a highly productive district.
5. The **Eastern Plain** includes the sea-board of Essex, Suffolk, and Norfolk, and is separated from the Fens by the East Anglian Heights.

RIVERS.—As all the higher elevations of land lie nearer the western than the eastern shores, the longest rivers are, with one exception, on the eastern side of England, and flow into the German Ocean. The main slope of the country is therefore towards the east; the shorter slopes are towards the south and west. The numerous streams and rivers of England may thus be classified according to the *inclination of their basins*.

¹ Moor, A.-S. *mer*, waste land.

² Wold, A.-S. *weald*, a forest. Cf. German *wald*.

³ Cotswold, probably from the *cots* for sheep, and *wold*.

⁴ On this plain, about eight miles from

Salisbury, is *Stonehenge*, a Druidical or Danish circle.

⁵ Also called the "*Bedford Level*," from the Duke of Bedford, who reclaimed large portions of it in the reign of Charles II. The coast is in some parts protected from inundation by *dykes*, as in Holland.

I. The following is a list of the principal rivers flowing into the German Ocean, from the

1. *Pennine Range*: The Tyne, Wear, Tees, Ouse, Trent (Humber).
2. *Water-shed of the Central Plains*: Witham, Welland, Nen, Ouse; all of which enter the Wash.
3. *East Anglian Heights*: Yare, Orwell, Stour (Essex), Colne, and Blackwater.
4. *Cotswold and other hills*: the Thames and its tributaries.
5. *Wealden Heights*: Stour (Kent).

II. Flowing into the English Channel, from the

1. *Wealden Heights*: Rother and Ouse (Sussex).
2. *The Downs of Hants and Wilts*: Itchen, Test, and Avon.
3. *Devonian Range*: Stour, Frome, Axe, Otter, Exe, Teign, Dart, Tamar, and Fal.

III. Flowing into the Bristol Channel, from the

1. *Devonian Range*: Torridge, Tawe, and Parret.
2. *Cotswold Hills*: Avon (Bristol).
3. *Welsh Mountains*: Severn, Wye, Uak, Taff, Neath, Tawe, and Towy.

IV. Flowing into the Irish Sea, from the

1. *Welsh Mountains*: Teify, Dyfi, Conway, Clwyd, Dee.
2. *Pennine Range*: Mersey, Ribble, Wyre, Lune, Eden.
3. *Cumbrian Group*: Kent, Derwent.

Of the above the most important are the Thames, Severn, Trent, Yorkshire Ouse, Humber, Great Ouse, Wye, Tyne, Bristol Avon, and Mersey.

1. The *Thames*¹ is, with one exception,² the longest river in the British Islands, and it ranks first in order of importance, since it has London, the metropolis of the British Empire, upon its banks. It is formed by the junction of the Thame and the Isis, both of which rise in the Cotswold Hills, in Gloucestershire, and flows east into the German Ocean after a course of 215 miles. Area of basin, 6160 square miles. Tributaries—on right bank, *Kennet*, *Loddon*, *Wey*, *Mole*, *Darent*, and *Medway*; and on the left, *Cherwell*, *Thame*, *Colne*, *Brent*, *Lea*, and *Roding*. The Thames is navigable for the largest vessels nearly to London Bridge, and for smaller craft to Lechlade, 160 miles from the sea. The tide is felt as far as Teddington, about 80 miles from the sea.

2. The *Severn*³ rises on the east side of Plinlimmon, and enters the Bristol Channel after a course of 200 miles. It drains an area of 4500 square miles. Tributaries—on the right bank, the *Teme*; on the left, the *Fyrrnwy*, *Tern*, *Stour*, and *Upper Avon*.⁴ The Severn is navigable to Welshpool, a distance of 170 miles from the sea.

3. The *Trent* rises in the moorlands of Staffordshire, and falls into the Humber after a course of 180 miles. Area of basin, 4000 square miles. Tributaries—on right bank, *Tame* and *Soar*; on left, the *Dove* and *Derwent*. Navigable to Burton, 105 miles from the Humber.

4. The *Ouse*, sometimes distinguished as the Yorkshire Ouse, is formed by the junction of the *Swale* and the *Yore*, and flows into the Humber after a course of 150 miles. Area of basin, 5500 square miles. Tributaries—on right bank, *Nidd*, *Wharfe*, *Aire*, *Don*; on left, the *Derwent*.

¹ Thames, from *Tameis*, the broad Isis: Gaelic *uisge*, water.

² The Shannon. The Thames is the longest river in Britain.

³ Severn or Havren. Being joined by the *Se* at Llanidloes, it becomes the *Scavren* or *Severn*.

⁴ Three rivers named Avon have been men-

tioned above, and there are several other streams in various parts of Britain that bear the same name. *Avon* (or *aſon*) was the Celtic term for a stream, or running water. *Ouse*, which is also a name attached to several English rivers, is from the French *cauz* (waters), and is a record of the Norman rulers of our island.

5. The river *Humber* is formed by the junction of the Trent and Ouse, and is commercially important, Hull being probably the third port in the kingdom.

6. The *Great Ouse* is the longest river entering the Wash, having a length of 156 miles and draining an area of 2960 square miles. Tributaries—*Cam*, *Lark*, and *Little Ouse*, all on right bank. Navigable to Bedford, 90 miles from the sea.

7. The *Wye* rises near the Severn on Plinlimmon, and falls into the Bristol Channel after a course of 148 miles. Drainage area, 1650 square miles.

8. The *Tyne* is formed by the confluence of the North Tyne, which rises in the Cheviots, and the South Tyne, rising on Crossfell, and has a course of 73 miles. Area of basin, 1100 square miles.

9. The *Bristol Avon* is sometimes regarded as a tributary of the Severn, and has a length of 78 miles and a drainage area of 900 square miles.

10. The *Mersey*¹ is a small river (68 miles in length), but its estuary forms the "Liverpool Channel," one of the most important harbours in the world. It drains an area of 1706 square miles, and is navigable to its junction with the *Irwell*.

LAKES.—There are few lakes in England, and they are nearly all situated within the region of the Cumbrian Mountains. The largest are Windermere,² Ulleswater, Coniston, Derwent Water, Bassenthwaite, Crummock, and Westwater. In Wales are Bala Lake, the Lakes of Llanberis, Llyn Conway, and Brecknock-mere.

The following summary of English lakes may be of service for reference :—

Names.	Length.	Breadth.	Elevation.	Depth.	Drained by the
	Miles.	Miles.	Feet.	Feet.	
Windermere, . .	10½	1	134	240	Leven.
Ulleswater, . .	8	1	318	210	Kamont.
Coniston, . .	5½	1	..	..	Crake.
Derwent Water, .	3½	1	288	..	Derwent.
Bala Lake, . .	4	1	..	40	Dee.
Conway Lake, .	1	..	..	..	Conway.
Brecknock-mere, .	3	1	..	12	..

CLIMATE.—The climate of England is temperate and healthy. The average temperature of the year is rather higher than that of the adjacent shores of the continent, while the summers are not so hot nor the winters so severe as those experienced on the mainland in similar latitudes. The general moisture of the atmosphere and the frequent occurrence of rain, as well as the above-mentioned characteristics, are explained by the insular position of Britain. The western side of the island has a rather higher temperature than the neighbourhood of the eastern coasts, and has also a greater fall of rain. The coasts of Cornwall and Devon, and the shores of South Wales, are especially distinguished by the mildness of their winter.

The lowest average winter temperature³ is about 35° or 36°, and the highest average summer about 64°. The average annual *rainfall* at Dover is 30 inches; London, 24; Coniston, 85; Liverpool, 35; and at Plymouth, 40.

¹ *Mersey*, A.-S. *mere*, a lake; *ey*, an island.

² Windermere (British), *gwym*, bright; *dwor*, water; and A.-S. *mere*, a lake.

³ The mean temperature of summer in London is 63.8°; of winter, 37.3°. Mean

annual temperature, 50° 55°. The number of days in the year upon which west and east winds blow has been observed to be in the ratio of 225 to 140; north and south winds as 192 to 173.

MINERALS.—The mineral produce of England and Wales is distinguished by its extraordinary abundance in what are most necessary to civilised man—coal and iron, together with copper, lead, zinc, tin, and other ores.

1. The **coalfields**¹ of England occur chiefly in the northern and midland counties, and yield an inexhaustible supply of that fuel—necessary alike for the purposes of manufacturing industry and of household consumption. South Wales includes a rich coalfield, of large extent, and North Wales contains some like tracts, of smaller area.

2. **Iron-ore**² occurs abundantly within the limits of nearly all the coal districts, and is most extensively worked in South Wales, together with the counties of Stafford, Shropshire, Yorkshire, Derbyshire, Durham, and Northumberland.

3. **Lead** is principally worked in Derbyshire, Northumberland, Cumberland, North and South Wales, and Devonshire.

4. **Copper and tin** belong chiefly (the latter entirely) to the counties of Cornwall and Devon.

5. Cheshire furnishes an abundant supply of **salt**, from the brine-springs and mines in the valley of the river Weaver, which joins the Mersey.

6. Good **marble and building-stone** are derived from the northern and north-midland districts of the country, as well as from its south-western peninsula. The Isle of Portland, in the county of Dorset, furnishes building-stone of excellent quality. The easterly and south-easterly divisions of England are deficient in this material; but the valuable clays in which they abound supply the material—brick—of which the metropolis and other cities in those parts of the island are chiefly constructed.

7. **Slate** is extensively quarried in Wales and in the mountain-region of Cumberland and Westmoreland.

VEGETATION and ZOOLOGY.—The large extent to which the land has been brought under culture has greatly diminished the size of the forests³ with which considerable portions of England were formerly covered, while many of the wild animals which its woods once sheltered have become altogether banished from within its limits. The wild grasses, flowers, and shrubs, with the numerous smaller members of the animal kingdom, though interesting to the naturalist, are of less real importance than the grains, fruits, and vegetables—the domestic cattle and various farmyard stock, which engage the attention of the agricultural portion of the English population. Few, even of those which thrive most upon its soil, were originally native to England, and several have been introduced within a comparatively modern date.

¹ Of the fourteen coalfields into which the United Kingdom is divided by the Mining Record Office, the following are the most important:—

Coalfield.	No. of Pitts.
Yorkshire, ...	423
Staffordshire, ...	423
Worcestershire, }	420
Scotland, ...	376
Lancashire, ...	304
Northumberland, }	187
Durham, ...	101
Derby, Nottingham, Leicesters, and Warwickshire, }	101
Gloucestershire, }	101
Somerset, ...	

The quantity of coal exported has risen from 3,468,545 tons in 1851 to 18,702,551 tons in

1880; while the total quantity of coal raised in 1879 amounted to 133,808,012 tons, of the value of £46,832,012.

² Of the other metals and minerals the total quantities produced in 1879 were as follow:—

	Tons.
Iron ore, ...	16,692,802
Lead ore, ...	80,850
Tin ore, ...	14,142
Copper ore, ...	73,141
Salt, ...	2,735,001

There were besides 420,079 ozs. of silver obtained from lead ore, and 702 ozs. of gold.

³ The principal forests are the New Forest in Hants, Dean Forest in Gloucester, Salcey Forest in Northampton, Windsor Forest in Berks, and Sherwood Forest in Notts.

Among trees, the *oak*, *elm*, *birch*, *poplar*, *alder*, *aspen*, *yew*, *mountain-ash*, and *Scotch-fir*, are probably indigenous to the soil; as also are the *apple*, the *hazel-nut*, *willow*, black and white *thorn*, *black-berry*, and common *dog-rose*. The trees, shrubs, and roots that are most common in England are, for the most part, the same that belong to similar latitudes of the European continent.

The vegetables which compose our common salads (as lettuces, radishes, &c.) were not grown in England until the reign of Henry VIII. The potato—a native of the New World—was first introduced into England in the reign of Elizabeth. The peach, and other fruits of like kind, have been derived (by way of southern Europe) from the countries of western Asia. We owe some of our most common garden-flowers, as the ranunculus and the damask-rose, to the Crusaders and their companion pilgrims. The various roses, the narcissus, iris, jonquil, mignonette, and many other well-known ornaments of our garden, have been derived from western Asia, or the coasts of the Mediterranean.

INHABITANTS.—England and Wales contained, in 1881, a population of 25,968,286.¹ In the proportion of inhabitants to extent of surface, England is more populous than any other country of Europe, with the exception of Belgium.

Of the above number, England contained 24,608,391, and Wales 1,359,895, equal to an average of 483 persons to the square mile in England, and 186 in Wales. The density of population varies exceedingly in different parts of the country; thus, while Middlesex has 10,347 inhabitants to the square mile, Westmoreland has only 84. In Wales the most thickly-peopled county is Glamorgan, with 597 persons to the square mile; and the least populous is Radnor, with 56. The great centres of population are London, South Lancashire, West Riding of Yorkshire, Leeds, &c., Birmingham, and Newcastle, in England; and Merthyr Tydvil in Wales.

Race and Language.—The people of England belong to the *Teutonic* race, those of Wales and Cornwall are of *Celtic* origin.

Of the Celtic race, the *Gaels* were evidently the first settlers in the south of England, and were subsequently driven north to Scotland and west to Ireland by the *Kymri*, another section of the Celtic family, and the ancestors of the present Welsh. Of the Teutonic race, the *Angles*, *Jutes*, and *Saxons* first invaded Britain, and in time dislodged the *Kymri* from every part of the country except Cornwall and Wales. Numbers of two other sections of the Teutonic family, the *Danes* and the *Normans*, also settled in England, and by the gradual admixture of all these elements the *English* nation was formed.

The languages spoken also differ—that of the Welsh, and to a comparatively recent date, the Cornish, people being purely Celtic; that of the English is mainly derived from the Anglo-Saxon, but with a large admixture of Latin, Greek, Norman-French, and other words of foreign origin. In the Isle of Man a peculiar Celtic dialect, called *Manx*, is still spoken. In the Channel Islands, French is the common language.

INDUSTRIAL PURSUITS.—Manufactures and trade constitute the characteristics of the national industry of Britain in the present day, and the proportion of the population of England that are engaged in them is rapidly increasing. It is only within a recent period, however, that such has been the case. Before the close of the last century, England was essentially an agricultural country. The rapid extension of machinery, and the amazing growth of our great branches of manufacturing industry, have effected a striking

¹ An increase since 1871 of 3,255,000.

change in the general character of the national industry. England ranks first among the nations of the world, in regard both to the extent of manufacturing produce and the amount of its foreign trade. Its agricultural produce, though considerable, is unequal to the consumption of its population, and the deficiency is supplied by the importation of food-stuffs from other lands.

1. **Agriculture.**—The more strictly agricultural districts of England are found chiefly in the eastern and southern portions of the island; the manufacturing districts belong to the northern, north-midland, and western counties. The farming pursuit in the latter is devoted in great measure to the rearing of stock, which is also (from the hilly nature of its surface, unsuited to the plough) the case in Wales.¹

Wheat, oats, barley, and rye are the grains most largely grown; wheat most extensively in the south-eastern counties, barley in the eastern and midland counties, oats within the district of the Fens and in the north. *Hops* are cultivated chiefly in Kent and Surrey (within the tract of country known as the Weald²), and in the counties of Worcester and Hereford. The *potato* is very largely grown in Lancashire, Cumberland, and Cheshire; the turnip chiefly in Norfolk. *Rape* is much cultivated in Lincolnshire and Cambridgeshire; *hemp* and *flax* in the counties of Lincoln and Suffolk. *Garden vegetables* are grown, on the most extensive scale, in the vicinity of the metropolis, and near the large towns in general. The counties of Hereford and Devon are distinguished for the extensive culture of the *apple*, from which cider is largely made.

2. **Manufactures.**—Cotton,³ wool,⁴ and iron are the three great staples of the manufacturing industry of Britain. The *first*, which is a vegetable material—the pod of the cotton plant—is derived by import, chiefly from the United States of America. The *second*, which belongs in its native state to the animal kingdom, is furnished by the fleeces of the sheep reared upon our plains and downs, together with a large quantity imported from distant lands—principally from our colonies in Australia and South Africa. The *third*, a mineral ore, is supplied in exhaustless abundance by the English soil.

The southern division of Lancashire and the adjoining part of Cheshire are the great seat of the *cotton* manufacture, which, though of comparatively recent origin, employs a much larger number of artisans than any other single branch of British industry.⁵ Manchester is the centre and capital of the cotton manufacture, and Liverpool is its port. The West Riding of Yorkshire is the chief seat of the *woollen* manufacture, and the towns of Leeds and Bradford are its principal centres of industry. The south part of Staffordshire, and the adjacent portions of Warwick, Worcester, and Shropshire, are the chief seats of the manufacture of *iron* and *hardware* goods, and the town of Birmingham is the manufacturing capital of this district. Sheffield, in Yorkshire, is the chief seat of one branch of the hardware trade—the making of *cutlery*.

Other manufactures are carried on extensively in England, but none upon a scale of such magnitude as the three abovenamed. The *silk* and *linen* manufactures, the making of *hosiery* and *lace*, the *leather* manufac-

¹ Of the total area of England (32,590,000 acres), more than two-thirds are under cultivation or in permanent pasture. In Wales only about half the land is in pasture or under cultivation.

² That is, *wood or forest*, which is what the word (of Saxon origin) means. In former times all this portion of Kent and Surrey,

with the adjoining part of Sussex, formed a vast forest.

³ Total imports of raw cotton in 1880, 14,547,283 cwts.

⁴ Total imports of wool in 1880, 460,337,412 lbs.

⁵ In 1875 there were 2655 cotton factories, with 479,515 operatives.

ture, those of *earthenware*¹ and *glass*, of *watches* and *clocks*, of *paper*, and a vast variety of others, are all of importance.

COMMERCE.—The foreign commerce of England extends to every part of the globe; her ships traverse every sea, and her flag is seen in the harbours of every land. The *import* of raw materials, and the *export* of manufactured goods, are the distinguishing features of English commerce.

1. **Imports.**²—*Sugar, coffee, spices*, and other productions of tropical regions, foreign to the English soil, are imported from the East and West Indies; *tea* from China and British India; *tobacco* from the United States and elsewhere; *timber* from Canada and the countries lying round the Baltic Sea; *wines* and *spirits* from France, Spain, and Portugal; *hides, skins, and tallow* from South America, South Africa, and Russia; *raw cotton* from the United States, Egypt, and other countries; *wool* from Australia, South Africa, &c.; *corn* and *flour* from the United States, Russia, &c.

The following is a list of the principal articles *imported* into the United Kingdom in 1880, with their value:—

Articles.	Value.	Articles.	Value.
Corn and flour, .	£62,332,865	Sugar (unrefined),	£18,449,315
Raw cotton, . .	42,765,183	Wood and timber,	10,757,785
Wool, ...	26,162,542	Tea, ...	11,752,250

2. **Exports.**—The most important articles exported are manufactured cotton, woollen, linen, and silk goods, iron and steel, earthenware, tin, machinery, stationery and books, and coal.

The countries to which the largest quantities of British manufactures and other produce are exported are the United States of America, Australia and New Zealand, the East Indies, Germany, Prussia, Holland, British North America, Brazil, Turkey, France, the West Indies, Russia, Italy, China, Spain and Portugal, and the various States of South America.

The principal articles *exported* in 1880, with their value, were:—

Articles.	Value.	Articles.	Value.
Cotton goods, .	£63,657,074	Coals, ...	£8,378,944
Woollen and worst- ed goods, . . }	17,270,367	Linen goods, .	5,826,496
Iron and steel, .	28,307,175	Machinery, . .	6,471,281

3. **Shipping.**—In 1879 the British mercantile service consisted of 20,538 sailing vessels of 40,868,742 tons, and 5027 steam vessels of 25,11,733 tons; of which 10,709 sailing and 1344 steam vessels were

¹ The making of earthenware, on an extensive scale, is almost peculiar to a district in the north of Staffordshire, which is hence called "the Potteries."

² Total value of imports in 1880, £400,990,056; exports, £222,810,526. The largest share of

the trade of the United Kingdom is done with the United States, the value of exports and imports being over £100,000,000; the trade with France amounts, on an average, to £56,000,000; and with India to £50,000,000.

employed in the *home trade*, 4381 sailing and 2027 steam vessels in the *foreign trade*, and the remainder partly in the home and partly in the foreign trade.

Besides British vessels, a large proportion of the trade is carried in foreign vessels. In 1880 the total tonnage of British and foreign vessels which entered British ports amounted to 41,348,984 and 17,387,709 tons respectively, giving a total of 58,736,693 tons. The British vessels in the same year were manned by nearly 200,000 men.

4. **Ports.**—The principal ports are Liverpool, London, Bristol, Hull, Southampton, Newcastle, Plymouth, Whitehaven, Sunderland, Yarmouth, Swansea, Cardiff, Grimsby, Stockton, and Barrow-in-Furness.

Of these ports London has by far the largest general trade, but its foreign trade is inferior to that of Liverpool. London, Liverpool, Hull, Stockton, and Southampton control the *foreign trade*; the *Irish trade* is almost entirely with Bristol and Liverpool. The most important *packet stations* are London, Dover, Southampton, Plymouth, Bristol, and Liverpool.

INTERNAL COMMUNICATION.—Good roads and canals traverse every part of England, and the numerous railways that have been constructed within the last thirty years supply the means of rapid communication between all the principal towns.

1. **Roads.**—There are about 25,000 miles of turnpike roads, and more than 100,000 miles of cross roads. The former especially are well made and are always kept in good condition.

2. **Canals** and navigable rivers formed a most important means of communication before railways were introduced, and are still largely used for the conveyance of heavy goods and coals. There are above 2300 miles of canals and nearly 1800 miles of navigable rivers, so that the available water-communication in England exceeds 4000 miles.

The principal canals are :—

(1.) The *Bridgewater Canal*, connecting Manchester and the Mersey (the first canal in England), completed in 1760.

(2.) The *Liverpool and Leeds Canal* (the *Grand Trunk Canal*), uniting the basins of the Mersey and Trent.

(3.) The *Grand Junction Canal* and *Oxford Canal*, uniting the basins of the Trent and Thames.

(4.) The *Thames and Severn Canal*, and the *Kennet and Avon Canal*.

3. **Railways.**—At the end of 1879 there were 12,547 miles of railway open for traffic in England and Wales, and in the same year over 503 millions of *passengers*¹ were conveyed by rail, besides enormous quantities of all kinds of *goods*. All the great railway lines of England radiate from London, and are the property of companies with a total capital of £593,000,000. The principal main lines are :—

(1.) The *London and North-Western*, from London to Crewe, thence to Carlisle, Liverpool, and Holyhead.

(2.) The *Great Western*, from London to Bristol.

(3.) The *Great Northern*, from London to York.

(4.) The *Midland*, from London to Barrow and Carlisle.

(5.) The *Great Eastern*, from London to Yarmouth.

(6.) The *London and South-Western*, from London to Devonport.

(7.) The *South-Eastern*, from London to Dover.

¹ Exclusive of holders of periodical and season tickets.

- (8.) *The London, Chatham, and Dover*, from London to Dover.
- (9.) *The London, Brighton, and South Coast Railway*.
- (10.) *The Lancashire and Yorkshire*, from Liverpool to Normanton.
- (11.) *The North-Eastern*, from Normanton Junction to Berwick.
- (12.) *The Manchester, Sheffield, and Lincolnshire*, from Manchester to Grimsby.

4. Post and Telegraphs.—The postal and telegraph services of England are the most extensive in the world, and are under the exclusive control of the Government.

In 1879-80, 950,000,000 letters, 96,000,000 post-cards, 180,000,000 book-packets and circulars, and 100,000,000 newspapers were delivered in England and Wales; and over 19,000,000 telegraphic messages were forwarded. In the same year 14,000,000 money orders, of the value of £21,000,000, were issued in England and Wales.

COUNTIES and TOWNS.¹—England and Wales are divided into fifty-two counties—England contains forty of the number and Wales twelve. The shapes of these divisions are very irregular, and the sizes very unequal, as the map shows us. Rutlandshire, the smallest of the English counties, is hardly more than one-fortieth part of the size of Yorkshire, which is the largest. Lincoln, Devon, and Norfolk come next to Yorkshire in order of magnitude. Middlesex, Huntingdon, and Bedford are, next to Rutland, the smallest in dimensions.

The English counties are divided, with reference to relative situation, into six northern, six western, five eastern, nine southern, and fourteen midland counties.

1. The *six northern counties* are Northumberland, Durham, Yorkshire, Cumberland, Westmoreland, and Lancashire. The first three border on the German Ocean, the other three are on the western side of the island, adjacent to the Irish Sea.

2. The *six western counties* are Cheshire, Shropshire, Herefordshire, Monmouthshire, Gloucestershire, and Somerset. The four first-mentioned of the number adjoin the Welsh border.

3. The *five eastern counties* are Lincoln, Cambridge, Norfolk, Suffolk, and Essex. All of them, except Cambridge, are washed by the waters of the German Ocean.

4. The *nine southern counties* are Kent, Surrey, Sussex, Berkshire, Hampshire, Wiltshire, Dorsetshire, Devon, and Cornwall. They stretch (with the exception of Surrey, Berkshire, and Wiltshire, which are inland) along the shore of the English Channel, from the North and South Forelands on the east to the Land's End in the west.

5. The *fourteen midland counties* are Stafford, Derby, Nottingham, Leicester, Warwick, Worcester, Oxford, Buckingham, Middlesex, Hertford, Bedford, Huntingdon, Northampton, and Rutland. The first six are sometimes distinguished as the *north-midland* counties, and the remainder as the *south-midland*. Middlesex is termed the metropolitan county, since it contains London, the capital of the British Empire.

The town which is the principal place of election for the county members, or, in some cases, that in which the assizes are held, is the *county town*. This ranks as the capital of the county, though it does not always coincide with the largest town which the county may contain.

¹ The population of the counties and towns is taken from the census returns of 1881.

I. SIX NORTHERN COUNTIES.

1. **NORTHUMBERLAND**, the most northerly of the English counties, contains the towns of Newcastle, North Shields, Berwick, Alnwick, Morpeth, and Hexham. The south-eastern portion of the county contains a rich coalfield, and has coal-mines, ironworks, and various manufactures. Its western and northern divisions are hilly and pastoral. *Area*, 1952 square miles. *Population*, 434,000.

Newcastle (*population*, 145,000), on the river Tyne, is the chief seat of the coal trade, and is also the county town. **Hexham**, a few miles west of Newcastle, was the scene of a victory gained by the Yorkists over the Lancastrian forces in 1464. **Berwick**, at the mouth of the river Tweed, adjoins the Scotch frontier, and is celebrated in the history of early border warfare. **Halidon Hill**, the scene of a victory gained by the English over the Scots, in 1333, is immediately to the north of Berwick. Northumberland includes the site of the battle of **Flodden**, so disastrous to the Scotch, fought (in 1513) near the village of Flodden, a few miles distant from the small town of Wooler, at the eastern foot of the Cheviot Hills. **Homildon**, the scene of Harry Percy's victory over Douglas (in 1402), lies only a mile distant from Wooler.

2. **DURHAM** adjoins Northumberland, and resembles that county in its eastern part, which is a rich coalfield, with numerous iron and other works, and busy seaport towns. *Area*, 973 square miles. *Population*, 867,000.

The cathedral city of **Durham** (*population*, 14,900), the capital of the county, is on the river Wear. At the mouth of the same river is **Sunderland** (*population*, 116,000). **Stockton** (on the Tees), **Hartlepool**, and **South Shields** are also in this county. The battle of *Neville's Cross*, gained over the Scottish army in 1346, was fought in this county, a few miles distant from the city of Durham.

3. **YORKSHIRE** is divided into three *ridings*—the North, East, and West Ridings. The two former are agricultural and pastoral; the West Riding embraces part of an extensive coalfield, and is a populous district, the chief seat of the woollen and clothing manufactures. *Area*, 5983 square miles; *population*, 2,886,000.

York (*population*, 54,000), the capital of the county, and an archbishop's see, stands on the river Ouse, in the centre of a fertile plain. A few miles west of York is the village of *Long Marston*, near which the army of Charles I. was defeated by Cromwell in 1644. Farther to the south-west, near the banks of the Wharfe, is *Towton*, the scene of the bloodiest engagement fought during the Wars of the Roses (1461). *Stamford Bridge*, a few miles east of York (on the river Derwent), is noteworthy for the victory gained there by Harold over his brother Tostig and a Norwegian army, a few days prior to the battle of Hastings.

The chief towns in the West Riding of Yorkshire are Leeds, Sheffield, Bradford, Huddersfield, Halifax, Wakefield, Barnsley, Dewsbury, Doncaster, and Ripon. **Leeds** (*population*, 309,000), on the river Aire, **Bradford**, **Huddersfield**, and **Halifax** are the great seats of the woollen and clothing manufactures. **Sheffield** (*population*, 284,000), on the river Don, is the seat of the cutlery trade. **Ripon**, on the Yore, is a cathedral

city. **Wakefield**, on the river Calder, was the scene of a victory gained by the Lancastrians over the followers of the White Rose in 1460.

The East Riding contains the towns of **Hull**, **Beverley**, and **Bridlington**. **Hull** (*population*, 154,000) stands on the north bank of the Humber, at the entrance of the little river Hull, and is an important seaport.

The North Riding contains **Scarborough** and **Whitby**, both situated on the coast; with **Malton**, **Richmond**, and **Northallerton** in the interior. The battle of the Standard, between the English and Scottish armies in 1138, was fought near Northallerton.

4. **CUMBERLAND** is for the most part mountainous, and has an *area* of 1564 square miles, and a *population* of 250,000. Its northerly division includes a plain of some extent, along the Solway Firth and the lower course of the Eden. In the west, adjoining the Irish Sea, is a small but highly-productive coalfield. The chief towns are **Carlisle**, **Whitehaven**, **Workington**, **Maryport**, **Cockermouth**, **Penrith**, and **Keswick**.

Carlisle (*population*, 35,000), the capital, is a cathedral city, on the river Eden. **Whitehaven**, on the coast, is the chief seat of the coal trade. **Workington** and **Penrith** are other coal-exporting ports. **Keswick** is in the heart of the lake district.

5. **WESTMORELAND** is for the most part mountainous and pastoral, and contains the towns of **Kendal** and **Appleby**. *Area*, 758 square miles; *population*, 64,000.

Appleby is the county town; but **Kendal** (*population*, 13,400), on the river Kent, which flows into Morecambe Bay, is of larger size, and has woollen and other manufactures. **Ambleside** is much resorted to on account of the beauty of the scenery.

6. **LANCASHIRE** (*area*, 1905 square miles; *population*, 3,454,000) includes the great seats of the cotton manufacture. This branch of industry is pursued through all the southern portion of the county, which embraces a valuable coalfield. A small detached portion of the county, known as **Furness**, lies to the north of Morecambe Bay. This belongs physically to the region of the Cumbrian mountains.

Manchester (*population*, including the adjoining town of **Salford**, 517,000), on the Irwell, and **Liverpool** (*population*, 552,000), at the mouth of the Mersey, are the largest towns in England, next to the metropolis; the former is the great centre of the cotton trade, and the latter its port. **Manchester** and **Liverpool** are cathedral cities. **Preston**, on the Ribble, **Bolton**, **Oldham**, **Blackburn**, **Wigan**, **Rochdale**, **Ashton-under-Lyne**, **Staley Bridge**, **Warrington**, **Colne**, **Chorley**, and **Lancaster**, are all busy manufacturing towns. **Barrow-in-Furness** is the port of the iron ore districts of North Lancashire, and the largest steel works in the kingdom. **Lancaster** (*population*, 20,700), on the river Lune, ranks as the capital of the county.

II. SIX WESTERN COUNTIES.

1. **CHESHIRE** is chiefly an agricultural county, but includes part of the cotton-manufacturing district. *Area*, 1105 square miles; *population*, 643,000.

The cathedral city of **Chester** (*population*, 36,700), on the river Dee, is its capital. Upon *Rowton Heath*, to the west of this city, the troops of

Charles I. were defeated by the parliamentary forces in 1645—a few months after the battle of Naseby. **Stockport** (*population*, 59,000), **Macclesfield** (*population*, 37,000), and **Birkenhead** (*population*, 83,000), opposite to Liverpool, are considerable towns. **Nantwich**, **Middlewich**, and **Northwich**, in the valley of the river Weaver, are famous for their saltworks.

2. **SHROPSHIRE** is chiefly agricultural, but includes a small coal-field, and has some iron and other manufactures, at Coalbrook Dale and elsewhere. *Area*, 1291 square miles; *population*, 247,000.

Shrewsbury (*population*, 26,000), on the Severn, is the county town. The battle between the army of Henry IV. and the insurgent forces under Hotspur was fought in its immediate vicinity in 1403. There are coal and iron mines at **Wenlock** and **Madeley**. The other towns are **Bridge-north**, **Wellington**, **Ludlow**, and **Oswestry**.

3. **HEREFORDSHIRE** is entirely agricultural, and is famous for its hop-grounds and its orchards. *Area*, 836 square miles; *population*, 121,000.

The city of **Hereford** (*population*, 19,000), its capital, stands on the river Wye, and has an ancient cathedral. Important cattle and cheese fairs are held in October each year. **Leominster**, **Ledbury**, and **Ross** are small towns in this county. A few miles to the north-west of Leominster is *Mortimer's Cross*, one of the battlefields of the Wars of the Roses, A.D. 1461.

4. **MONMOUTHSHIRE** is a mining and manufacturing county. It includes a portion of the South Wales coalfield, and has numerous ironworks. *Area*, 576 square miles; *population*, 211,000.

The chief town, **Monmouth** (*population*, 6000), is on the Wye, at the junction of the small river Munnnow. At **Tredegar** are several coal and iron mines. The other towns are **Newport** (*population*, 27,000), a considerable seaport at the mouth of the Usk, **Abergavenny**, **Pontypool**, and **Chepstow**.

5. **GLOUCESTERSHIRE** (*area*, 1258 square miles; *population*, 572,000) includes the long chain of the Cotswold Hills, and is in great part agricultural. But it possesses two small coalfields—one of them in the Forest of Dean, to the west of the Severn, the other near the Avon, on the south border of the county. The making of woollen cloth is pursued extensively at Stroud and other places in the neighbourhood of the Cotswolds.

Gloucester (*population*, 36,000), the capital, is on the banks of the river Severn, and is a cathedral city.¹ **Cheltenham**, **Stroud**, **Cirencester**, and **Tewkesbury** are in this county. Cheltenham is famed for its mineral waters. Tewkesbury, on the Severn, is historically noteworthy on account of the victory gained there by Edward IV. over the army of Queen Margaret, in 1471, three weeks after the battle of Barnet.

Bristol (*population*, 206,000), on the river Avon, is partly in Gloucestershire and partly in Somersetshire, but has the privileges of a county in itself. Bristol is an important and flourishing port.

6. **SOMERSETSHIRE** is almost wholly agricultural. *Area*, 1636 square miles; *population*, 469,000.

¹ The cities of Gloucester and Bristol form, unitedly, one diocese.

Taunton (*population*, 16,000), on the river Tone, is the county town. **Bath** (*population*, 51,000), which is of larger size, stands on the Avon, and has warm mineral springs. **Wells**¹ is an ancient city, lying at the foot of the Mendip Hills. **Frome**, **Bridgewater**, and **Yeovil** are in this county. Between Bridgewater and Taunton is *Sedgemoor*, the scene of Monmouth's defeat by the troops of James II. in 1685. *Athelney*, the temporary retreat of Alfred, was in former ages a marshy tract of ground, lying near the junction of the rivers Tone and Parret, by which it was insulated.

III. FIVE EASTERN COUNTIES.

1. **LINCOLNSHIRE** is an agricultural county. *Area*, 2776 square miles; *population*, 469,000.

Its capital, **Lincoln** (*population*, 37,000), is an ancient cathedral city on the river Witham. **Boston** (*population*, 15,000), also on the Witham, a few miles above its mouth, and **Grimsby** (*population*, 20,000), on the south bank of the Humber, are flourishing ports. **Gainsborough** (on the Trent), **Stamford** (on the Welland), and **Louth** are inland towns.

2. **CAMBRIDGESHIRE** is an agricultural county, and has an *area* of 819 square miles, and a *population* of 185,000. Its northern half is called the Isle of Ely, from its having in former times been insulated by marshes, and is within the level region of the Fens.

The county town, **Cambridge** (*population*, 35,000), is on the river Cam, or Granta, which joins the Ouse, and is the seat of one of the two ancient universities of England. **Wisbeach**, **Ely**, and **Newmarket** are in this county. **Ely**, on the river Ouse, is a cathedral city.

3. **NORFOLK** is the only one of the eastern counties that possesses any considerable manufactures; but by far the larger portion of the county is agricultural. *Area*, 2116 square miles; *population*, 444,000.

The ancient cathedral city of **Norwich** (*population*, 87,000), its capital, was an early seat of woollen manufacture, which it still retains. Norwich stands on the river Wensum, immediately above its junction with the Yare. **Yarmouth** (*population*, 46,000), at the mouth of the Yare, is a flourishing seaport. **Lynn** (or King's Lynn), which also possesses considerable trade, is at the mouth of the Great Ouse.

4. **SUFFOLK** is an entirely agricultural county. *Area*, 1481 square miles; *population*, 356,000.

Its chief town, **Ipswich** (*population*, 50,000), stands on the river Orwell, a few miles above its mouth. **Bury St. Edmunds**, **Lowestoft**, and **Sudbury** are the other principal towns. Lowestoft is a seaport, situated at the most easterly extremity of Great Britain, and is the chief station of the herring fishery.

5. **ESSEX** is also chiefly agricultural. *Area*, 1657 square miles; *population*, 466,000.

Its county town is **Chelmsford**, on the river Chelmer. But **Colchester** (*population*, 28,000), on the river Colne, is of larger size. **Harwich**, a

¹ The cities of Bath and Wells form together one diocese or episcopal see.

seaport of more importance in a former period than at the present time, lies at the mouth of the river Stour. **Saffron-Walden, Braintree, and Maldon** are small inland towns.

IV. NINE SOUTHERN COUNTIES.

1. **KENT** is chiefly an agricultural county, but it contains numerous seaports, some of which, from their proximity to the coast of France, were early of historical importance. *Area*, 1627 square miles ; *population*, 977,000.

The county town is **Maldstone** (*population*, 29,000), on the river Medway ; but **Chatham**, **Woolwich**, and **Dover** are of larger size. **Chatham** (*population*, 26,000), which lies near the mouth of the Medway, is an important naval arsenal. It adjoins **Rochester**, which is an ancient cathedral city. **Woolwich** is on the south bank of the Thames, below London. **Dover** is at the south-east corner of the island, immediately opposite to the coast of France ; a few miles west of it is **Folkestone**, also a seaport of ancient date. **Canterbury** (*population*, 21,000), on the river Stour, is an ancient cathedral city—the ecclesiastical metropolis of England¹—and surpasses any other place in Kent in historic dignity. It was here that the Saxon king, Ethelbert, A.D. 597, embraced Christianity, on its re-introduction into Britain by the agency of Augustine.

Along the shores of Kent (beginning at the eastern suburbs of London) there occur in succession the following places :—Greenwich, Woolwich, Gravesend, Rochester, and Chatham ; Sheerness (on the Isle of Sheppey), Whitstable, Margate, Ramsgate, Sandwich, Deal, Dover, Folkestone, and Hythe.

Margate and **Ramsgate** are situated on the Isle of Thanet, which is now only divided from the mainland by a shallow creek. The sea immediately in front of Deal is called the *Downs*, and is a much-frequented roadstead.²

Some of the ports on the Kentish and Sussex coasts had peculiar privileges granted them in the later Saxon and early Norman times, from the importance of their position with reference to the opposite shores of the continent. The *Cinque Ports*, as they were called—originally five in number—were **Sandwich, Deal, Dover, Hythe, and Romney**, all in Kent. Three others, **Rye, Winchelsea, and Hastings**, in the adjoining county of Sussex, were afterwards added.³ **Dover, Deal, and Hastings** are now the most considerable of the Cinque Ports, the harbours of the others having become, in the lapse of time, choked up by the sand.

2. **SURREY** includes that portion of the metropolis situated to the south of the Thames, but by far the greater part of the county is agricultural. *Area*, 748 square miles ; *population*, 1,435,000.

Guildford (*population*, 10,000), the county town, is on the river Wey, an affluent of the Thames ; **Croydon**, a few miles south of London, is of larger size. **Richmond** and **Kingston**, both on the Thames, are in this county. Kingston was important in Saxon times, and seven of our Saxon

¹ Canterbury and York are each the seat of an archbishopric. But Canterbury ranks first in point of dignity. The Archbishop of York is a primate of England ; the Archbishop of Canterbury is primate of all England.

² A part of the open sea in which ships are accustomed to ride at anchor is called a *road* or *roadstead*.

³ These ports were bound by charter to provide a certain number of ships for the defence of the coast.

kings were crowned there. *Runnymede*, where the Great Charter was signed by King John, at the instance of his armed barons (A.D. 1215), is within the north-western border of Surrey, immediately adjoining the south bank of the Thames, and near the small town of Egham.

3. **SUSSEX** (*area*, 1458 square miles; *population*, 490,000), an agricultural county, includes an extensive line of coast lying along the English Channel. From Beachy Head westward this coast is backed by the range of chalk hills called the South Downs.

Lewes (*population*, 11,000), on a small river called the Ouse, is the county town, and gave its name to a battle fought in the vicinity between Prince Edward (afterwards Edward I.) and the rebellious barons, during the reign of Henry III. (A.D. 1264). **Brighton** (*population*, 107,000), on the coast, is a large and flourishing town, the resort of vast numbers of visitors from the metropolis. **Hastings**, also on the coast, is farther to the eastward. A few miles west of Hastings (near Bulverhithe, on the shore of Pevensey Bay) is the place where William the Conqueror landed in 1066; the small town of *Battle*, to the north-west of Hastings, marks the scene of the engagement which, a few days afterwards, transferred the dominion of England from Saxon to Norman hands. **Shoreham** and **Worthing** are on the coast, to the west of Brighton. **Chichester**, still farther west, is a cathedral city.

4. **BERKSHIRE** is an agricultural county. *Area*, 705 square miles; *population*, 218,000.

Reading (*population*, 42,000), its capital, stands at the junction of the river Kennet with the Thames. **Windsor** (*population*, 15,000), the frequent residence of our sovereign, is on the south bank of the Thames. **Abingdon**, **Maidenhead**, **Newbury**, and **Wantage** are in this county. Two engagements between the armies of Charles I. and the Parliament occurred near *Newbury* (in 1643 and the following year). *Wantage* is distinguished as the birthplace of Alfred the Great.

5. **HAMPSHIRE** is an agricultural county. *Area*, 1672 square miles; *population*, 593,000.

It possesses two important seaports—**Portsmouth** (*population*, 127,000) and **Southampton** (*population*, 60,000); but **Winchester** (*population*, 14,500), an ancient cathedral city, in the fertile valley of the Itchen, is the capital. Winchester was the chief city of the West Saxon kings, and continued to be regarded, in early Norman times, as the capital of that kingdom. Portsmouth is one of the three great naval arsenals of England. **Andover**, **Lymington**, and **Basingstoke** are small towns. The Isle of Wight lies to the south of Hampshire, and forms a portion of that county. It contains the small towns of **Newport**, **Ryde**, and **Cowes**. Near Newport is Carisbrooke Castle, at one time the prison of King Charles I. The eastern portion of the channel which divides the Isle of Wight from the mainland is called Spithead; the western portion is the Solent.

6. **WILTSHIRE** is chiefly agricultural, but the manufacture of woollen cloth is carried on at Bradford, Trowbridge, and other places in its westerly division. *Area*, 1352 square miles; *population*, 258,000.

Salisbury (*population*, 14,000), the capital of the county, and a cathedral city, is on the Avon. The manor-house of *Clarendon*, where the well-known statutes called "The Constitutions of Clarendon" were drawn up in the reign of Henry II., is a few miles east of Salisbury. *Stonehenge*, a Druidical remain—among the most ancient monuments of our island—is upon the high chalk tract of Salisbury Plain. **Devizes**, **Warminster**, and **Marlborough** are among the other towns in this county. *Roundway Down*, near Devizes, was the scene of a skirmish between the Royalist and Parliamentary forces in 1643.

7. **DORSETSHIRE** is an agricultural county, and has several small seaports on the coast of the Channel. *Area*, 958 square miles; *population*, 190,000.

Dorchester (*population*, 7000), the county town, is on the river Stour. **Weymouth** (*population*, 13,000) is a packet station and a fashionable watering-place. **Poole** and **Bridport** are among the other towns. The peninsular tracts known as the Isle of Purbeck and the Isle of Portland are both within this county.

8. **DEVONSHIRE**, which is chiefly an agricultural county, includes the high tract of Dartmoor, and (in the north) part of an elevated region called Exmoor, on the borders of Somerset. It has numerous seaports, some on the shore of the English Channel, and others on the side of the Bristol Channel. *Area*, 2589 square miles; *population*, 604,000.

Exeter (*population*, 37,000), the capital, is a cathedral city, on the river Exe. **Plymouth** and **Devonport** are adjacent towns (*population*, 123,000), situated on the fine estuary of Plymouth Sound, which is one of the chief stations for the British Navy. **Barnstaple** (at the mouth of the river Tawe, which flows into Barnstaple Bay), **Bideford**, **Tiverton**, **Tavistock**, **Dartmouth**, **Teignmouth**, and **Torquay** are in this county.

9. **CORNWALL** is chiefly a mining county. Its tin mines have been worked from a very early age—many centuries before the Christian era. It has also numerous copper mines. *Area*, 1365 square miles; *population*, 329,000.

Bodmin (*population*, 5000) is the county town, but **Truro** (*population*, 10,000) ranks as the capital of the mining district. **Penzance**, **Falmouth**, **St. Austell**, and **Launceston** are among the other towns. *Stratton*, near the northern extremity of the county, was the scene of a victory gained by the Royalists over the Parliamentary forces in 1643.

The **Scilly Islands** lie off the coast of Cornwall, at the entrance of the English Channel.

V. THE FOURTEEN MIDLAND COUNTIES.

1. **STAFFORDSHIRE** is a manufacturing county, and has an *area* of 1138 square miles, and a *population* of 981,000. It includes two coalfields—one (that of South Staffordshire) the seat of the iron and hardware manufacture; the other (in the northern part of the county) embracing the district of the Potteries.

The county town is **Stafford** (*population*, 19,000), on the river Sow, an affluent of the Trent. But **Wolverhampton** (*population*, 75,000), **West**

Bromwich, Walsall, Bilston, and Wednesbury, within the coal and iron district of the south (and in the vicinity of Birmingham), are all of larger size. **Stoke-upon-Trent** (in the northern part of the county) is in the Pottery district. **Lichfield** (*population*, 8300), towards the eastern border of the county, is a cathedral city. **Leek, Burton-on-Trent, and Tamworth** are towns of smaller size.

The site of the battle of *Blore Heath* (A.D. 1459) is within this county, about eleven miles to the north-west of Stafford, and close to the Shropshire border.

2. **DERBYSHIRE** is partly a manufacturing county, but embraces the rugged and elevated district of the Peak, which forms its northerly division. It has numerous lead and iron mines, and includes part of an extensive coalfield, the larger portion of which is within the adjacent county of York. *Area*, 1029 square miles; *population*, 461,000.

The chief town, **Derby** (*population*, 80,000), is on the river Derwent, which joins the Trent, and is a great seat of the silk manufacture, and particularly of silk stockings. **Chesterfield, Belper, Wirksworth, Ashborne, and Matlock** are among the other towns. Matlock is noted for its warm mineral waters, and for the romantic beauties of its scenery.

3. **NOTTINGHAMSHIRE** is part manufacturing, but is more generally an agricultural district. *Area*, 822 square miles; *population*, 391,000.

The chief town, **Nottingham** (*population*, 111,000), on the Trent, has extensive manufactures of cotton stockings and lace. **Newark, Mansfield, and Worksop** are smaller towns. A few miles from Newark, and near the south bank of the Trent, is the village of *Stoke*, the scene of a battle fought (A.D. 1487) between the army of Henry VII. and the followers of the impostor Simnel.

4. **LEICESTERSHIRE** has extensive manufactures, though a great portion of the county is agricultural. *Area*, 804 square miles; *population*, 321,000.

The county town, **Leicester** (*population*, 122,000), on the river Soar, which joins the Trent, is noted for its manufacture of woollen stockings, and is one of the most considerable of our midland towns. **Bosworth**, near which the battle that terminated the Wars of the Roses was fought in 1483, is a few miles west of Leicester. **Ashby-de-la-Zouch**, in the north-west part of the county, has a small coalfield in its neighbourhood. The other towns are **Loughborough, Hinckley, Melton Mowbray, and Market Harborough**.

5. **WARWICKSHIRE** is a manufacturing county. *Area*, 881 square miles; *population*, 737,000.

The county town, **Warwick** (*population* 11,000), is on the banks of the Upper Avon. Adjoining it is **Leamington**, famous for its mineral waters. **Birmingham** (*population*, 408,000), in the north-west part of Warwickshire, close to the Staffordshire border, is a large and populous town, the great centre of the iron trade. **Coventry** (*population*, 42,000), farther to the east, has a small coalfield in its vicinity, and is noted for its manufacture of ribbons. **Rugby, Nuneaton, and Stratford-on-Avon** (the

birthplace of Shakespeare), are in this county. The battle of *Edgehill* (A.D. 1642) was fought on the rising ground of that name, within the southern extremity of Warwickshire.

6. **WORCESTERSHIRE** has extensive manufactures in its northerly division, but is chiefly an agricultural county. *Area*, 738 square miles; *population*, 380,000.

Its capital, **Worcester** (*population*, 33,000), on the Severn, is a cathedral city, and is noted for its porcelain and glass works, as well as for many events of historic fame—chief among them the victory of Cromwell over the adherents of Charles II. in 1651. **Kidderminster** (*population*, 24,000), on the Stour, has extensive carpet factories. **Dudley** (*population*, 46,000), farther to the north, though belonging to this county, is locally within the iron and coal district of South Staffordshire, and is a populous seat of the hardware trade. **Bromsgrove**, **Stourbridge**, **Stourport**, and **Evesham** are within this county. **Evesham** (within the fertile vale of that name, watered by the Avon) was the scene of a battle between Prince Edward and the barons under Simon Montfort in 1265.

7. **OXFORDSHIRE** (*area*, 739 square miles; *population*, 179,000), also an agricultural county, has for its capital the cathedral city of **Oxford** (*population*, 38,000), seated at the junction of the Cherwell and the Thames.

Oxford is a celebrated seat of learning, one of the two ancient universities of England. Among the other towns are **Banbury**, **Witney**, **Henley-on-Thames**, and **Woodstock**. *Chalgrove Field*, the scene of a skirmish between the forces of Charles I. and the Parliament, in which Hampden was mortally wounded (1643), is in this county.

8. **BUCKINGHAMSHIRE** is entirely an agricultural county, and has an *area* of 730 square miles, and a *population* of 176,000.

Its county town, **Buckingham** (*population*, 3000), lies on the Great Ouse, in the northern part of the county. The other towns are **Aylesbury**, **Great Marlow**, and **Wycombe**. Aylesbury is noted for the manufacture of condensed milk; Eton has a famous college.

9. **MIDDLESEX** is the most populous of the counties, owing to the larger portion of London being within its limits. It stretches along the north bank of the river Thames, by which it is divided from the neighbouring county of Surrey. *Area*, 282 square miles; *population*, 2,918,000.

London, with its suburbs, stretches over a vast space, within which are included 3,814,000 inhabitants—probably a larger population than that of any other city on the globe. Besides its rank as the metropolis of the kingdom, London is a great manufacturing and commercial city, a centre of arts, literature, general refinement, and wealth. Westminster, which is now included within the westerly limits of the metropolis, was formerly separated from London by intervening fields, and still preserves the privileges of a distinct city. Southwark, the southwardly division of London, is to the south of the Thames, and within the county of Surrey. London contains the cathedral church of St. Paul's, and constitutes a bishop's see.

The towns of **Brentford**, **Uxbridge**, and **Staines** are in this county; Brentford is the county town.

10. **HERTFORDSHIRE** is an agricultural county, and has no towns of large size. *Area*, 611 square miles ; *population*, 202,000.

Hertford (*population*, 7000), on the river Lea, is the county town. Near it is **Ware**, also on the Lea. **St. Albans**, **Hitchin**, **Watford**, **Bishop Stortford**, and **Barnet** are small places in this county. *St. Albans* was the scene of two of the battles fought during the Wars of the Roses (1455 and 1461). *Barnet*, which lies on the borders of Hertford and Middlesex, witnessed a more important event belonging to the same disastrous period—the battle in which the famous Earl of Warwick was slain, A.D. 1471.

11. **BEDFORDSHIRE** (*area*, 462 square miles ; *population*, 149,000), a small agricultural county, has for its capital the town of **Bedford** (*population*, 19,000), on the river Ouse, the birthplace of John Bunyan.

Among its other towns are **Luton**, **Dunstable**, **Leighton-Buzzard**, and **Woburn**. Luton and Dunstable are noted for straw-plait and straw-hat manufacture.

12. **HUNTINGDONSHIRE** is an agricultural county, and great part of it is within the district of the Fens. *Area*, 361 square miles ; *population*, 59,000.

Its county town, **Huntingdon** (*population*, 6400), on the river Ouse, was the birthplace of Oliver Cromwell. **St. Ives** and **St. Neots** are small towns in this county.

13. **NORTHAMPTONSHIRE** (*area*, 985 square miles ; *population*, 272,000) is chiefly an agricultural county.

Its county town, **Northampton** (*population*, 51,000), on the river Nen, has, however, an extensive manufacture of boots and shoes. **Peterborough** (*population*, 22,000), also on the Nen, is a cathedral city, and has considerable trade. **Wellingborough**, **Kettering**, and **Daventry** are smaller towns. *Naseby*, the scene of the decisive victory gained by Cromwell over the army of Charles I. (A.D. 1645), is in this county, twelve miles distant from Northampton, to the north-west. A battle was fought near the town of *Northampton* in 1460, during the Wars of the Roses.

14. **RUTLANDSHIRE** (*area*, 150 square miles ; *population*, 21,000), the smallest of the counties, is entirely agricultural.

It contains the small towns of **Oakham** (*population*, 2000) and **Uppingham**, the former of which is the county town. At Uppingham is an excellent high-class grammar school.

VI. TWELVE WELSH COUNTIES.

Six of the counties are in North Wales, and six in South Wales. The six counties of North Wales are Anglesea, Carnarvon, Denbigh, Flint, Merioneth, and Montgomery.

The six counties of South Wales are Cardigan, Radnor, Brecknock, Glamorgan, Carmarthen, and Pembroke.

The counties of Flint, Denbigh, and Anglesea, in North Wales, with Glamorgan and Carmarthen, in South Wales, possess coal

and iron mines, and Glamorgan has considerable trade. But the greater part of Wales is pastoral.

The chief towns in each of the Welsh counties are named below, the county town being distinguished by *italics* :—

Counties.	Area in Sq. M.	Popu- lation.	Towns.
Anglesea . . .	302	50,000	Holyhead, <i>Beaumaris</i> , Amlwch.
Carnarvonshire . . .	579	119,000	<i>Carnarvon</i> , Bangor, Conway, Llandudno.
Denbighshire . . .	603	108,000	<i>Denbigh</i> , Wrexham, Ruthin, Abergele.
Flintshire . . .	289	80,000	Holywell, <i>Mold</i> , Flint, St. Asaph, Rhyl.
Merionethshire . . .	602	54,000	<i>Dolgelley</i> , Bala, Barmouth, Harlech.
Montgomeryshire . . .	755	65,000	Newton, Welshpool, <i>Montgomery</i> , Llanidloes.
Cardiganshire . . .	693	70,000	Aberystwith, <i>Cardigan</i> , Lampeter.
Radnorshire . . .	425	23,000	New Radnor, <i>Presteign</i> , Knighton, Rhayader.
Brecknockshire . . .	719	57,000	<i>Brecon</i> , Hay, Builth, Crickhowel.
Glamorganshire . . .	855	511,000	Merthyr-Tydvil, Swansea, <i>Cardiff</i> , Neath, Llandaff.
Carmarthenshire . . .	947	124,000	<i>Carmarthen</i> , Llanelli, Llandeilo, Kidwelly.
Pembrokeshire . . .	628	91,000	<i>Pembroke</i> , Haverfordwest, Tenby, Milford, St. Davids.

Merthyr-Tydvil (*population*, 91,000), which is within the South Wales coalfield, and which forms the centre of coal and iron works upon a scale of great magnitude, is the largest town in Wales. **Swansea** (*population*, 63,700) and **Cardiff** (*population*, 85,000) are next in size, and are the chief ports of the coal and iron district. But the towns in Wales are, in general, of small size. **Milford**, in Pembrokeshire, stands on the shore of Milford Haven, a magnificent natural harbour, formed by a deep inlet of the sea. **Holyhead**, on a small islet (Holy Island) which nearly adjoins the coast of Anglesea, is an important packet station. The channel which separates the Isle of Anglesea from the mainland is called the *Menai Strait*.

The **ISLE OF MAN** (*area*, 220 square miles ; *population*, 53,000) forms a dependency of the English crown, but is not included within any of the counties. **Douglas** is the capital, and the largest and most important town in the island. **Castletown**, a very ancient town, was formerly the capital.

The **CHANNEL ISLANDS** also are a dependency of Great Britain, and consist of Jersey (capital, **St. Hilier**), Guernsey (capital, **St. Pierre**), Alderney, and Sark. *Total area*, 73 square miles ; *population*, 87,000.

QUESTIONS ON ENGLAND AND WALES.

- Write out a short general description of the British Isles.
- How is England bounded?
- Name the principal *capes* upon (a) the east coast of England, (b) the south coast, (c) the west coast.
- Which are the extreme eastern, southern, and western points of England?
- Name, in successive order, the principal *gulfs* and other inlets and *straits* on the coasts of England.
- Give a few particulars of the principal *English islands*.
- What tracts of high ground occur in succession upon the western side of England and Wales, proceeding from north to south?
- Name the highest *mountains* in England and Wales, with their height in feet.
- In what counties of England are the following :—Dartmoor, the Chiltern Hills, the Wrekin, the Mendip Hills, the South Downs, and the Wolds?
- In what counties are the Clee Hills, the Malvern Hills, the Cotswold Hills,

the Blackdown Hills, Exmoor, and Salisbury Plain?

21. Name a few of the larger *plains* and *valleys* of England.

22. Enumerate the principal *rivers* (a) on the east coast from north to south, (b) the south coast, (c) the west coast.

23. Describe briefly the principal rivers of England and Wales.

24. Name the principal English *lakes*, and give particulars as to their size.

25. What parts of the English and Welsh coasts are distinguished by the superior mildness of their winter climate?

26. What *minerals* occur in England and Wales?

27. In which of the English counties do we find iron, salt, and slate?

28. Name some of the *trees* that are native to the English soil.

29. In which parts of England is the industry of the people chiefly agricultural?

30. What grains are most extensively grown in England, and in what localities?

31. What three articles form the great staples of manufacturing industry in Britain? Whence is each principally derived?

32. What three districts are respectively the great seats of the cotton, woolen, and iron manufactures; and what town is the chief industrial centre in each?

33. What circumstance characterises the foreign trade of Britain, as to the general nature of its imports and exports?

34. From what countries are the following imports chiefly derived:—tea, coffee, sugar, timber, wines and spirits, tobacco, and hides?

35. To what countries are the largest quantities of British manufactures exported?

36. Say what you know of the *shipping* of the kingdom and means of *communication*.

37. How many counties are there in England? Which is largest of the number? Which the smallest?

38. Name (a) the six northern counties; (b) six western counties; (c) five eastern counties; (d) nine southern counties; (e) fourteen midland counties.

39. Name the chief towns in the counties of Northumberland and Durham.

40. What are the chief towns within the West Riding of Yorkshire, and by what branches of industry are they distinguished?

41. Name the chief towns of Lancashire, distinguishing the county town.

42. Upon what rivers are the following

towns:—Newcastle, Carlisle, Lancaster, Preston, Manchester, Shrewsbury, and Chester?

43. Name the county town of each of the six western counties, with the river on which it stands.

44. Name the county town of each of the five eastern counties, with the rivers on which they stand.

45. Name the nine southern counties, with the chief town of each.

46. In what counties are the following towns:—Oswestry, Abergavenny, Taunton, Wells, Stroud, Boston, Lynn, Yarmouth, Ely, Ipswich, and Colchester?

47. On what river does Norwich stand, and of what branch of manufacturing industry is it the seat?

48. In what counties are Maidstone, Guildford, Windsor, Lewes, Portsmouth, Newbury, Weymouth, and Salisbury?

49. Name the towns that were formerly known as the Cinque Ports. In what counties are they situated?

50. On what rivers are Maidstone, Winchester, Reading, Salisbury, Dorchester, and Exeter?

51. By what branch of industry is Cornwall distinguished, and what towns does it contain?

52. Name the metropolitan county. What towns, besides London, does it contain?

53. In what counties are the following towns:—St. Albans, Aylesbury, Banbury, Peterborough, Dunstable, and Loughborough?

54. In what counties are Birmingham, Kidderminster, Dudley, Stourbridge, Lichfield, Chesterfield, and Newark?

55. Of what branch of manufacturing industry is Birmingham the centre, and what adjacent towns are within the same manufacturing district?

56. In what county is Stoke-upon-Trent, and of what branch of industry is it the seat?

57. Of what manufactures are the towns of Nottingham, Derby, and Leicester the respective seats?

58. Upon what river is each of the following towns situated:—Derby, Leicester, Warwick, Peterborough, Bedford, and Nottingham?

59. In what counties of England are the sites of the following battles:—Hastings, Blenheim, Towton, Bosworth, and Stoke?

60. In what counties are the following:—Flodden, Edge Hill, Chalgrove, Marston Moor, Naseby, and Sedgemoor?

61. Name the six counties of North Wales, with the chief town of each.

62. Name the counties of South Wales, with the chief town of each.¹

¹ It is hardly necessary to observe that questions of this kind may be either extended or varied, at the discretion of the teacher. Those that are given above are intended rather to exemplify the kind of treatment of which the subject is suscep-

tible, than designed to indicate any definite limit to exercises of this description. The more thoroughly such a mode of examination is pursued—always with and on the map—the larger will be the amount of real knowledge gained by the learner.

II. SCOTLAND.

SCOTLAND¹ is the northerly portion of the island of Great Britain.

BOUNDARIES.—Scotland is bounded on the *north* and *west* by the Atlantic Ocean; on the *south* by England and part of the Irish Sea; and on the *east* by the North Sea, or German Ocean.

Scotland is divided from—

England by the Solway Firth, the Cheviot Hills, and the Tweed.

Ireland by the North Channel.

Denmark and South Norway by the North Sea.

EXTENT.—The area of Scotland (inclusive of its numerous islands) is about 30,685 square miles, or rather more than half that of England and Wales. The mainland alone embraces an area of nearly 27,000 square miles.

The *greatest length*,² from Dunnet Head to the Mull of Galloway, is 288 m. The *greatest breadth*, from Buchan Ness to Ardnamurchan Point, is 175 m. The *least breadth*, between the Firths of Forth and Clyde, is only 32 miles.

COASTS.—The coast of Scotland is more indented than that of England, especially on the west and north, and has a total length of not less than 2500 miles, equivalent to 1 mile of coast to every 12 square miles of area. The broader indentations by which the sea penetrates the land are generally called *Firths*—the narrower inlets bear the name of *Lochs*.³ Owing to its numerous indentations no part of the mainland is more than 40 miles from the sea.

From the Solway Firth to Loch Linnhe the shores are generally low, but from the latter north to Cape Wrath and east to Dunnet Head the coast is formed by high cliffs. The east coast, from Tarbet Ness to the Firth of Forth, is on the whole flat and generally sandy, but from St. Abb's Head to the Tweed it is bold and rocky. The principal features to be noted are—

1. **CAVES.**—The principal capes are—

- (1.) On the *north*, Dunnet Head and Cape Wrath.
- (2.) On the *east*, Duncansby Head, Tarbet Ness, Kinnaird's Head, Buchan Ness, Buddon Ness, Fife Ness, and St. Abb's Head.
- (3.) On the *west*, Ardnamurchan Point, the Mull⁴ of Cantire, Corsill Point.
- (4.) On the *south*, the Mull of Galloway and Burrow Head.

The most *northerly* point is Dunnet Head.

The most *southerly* point is the Mull of Galloway.

The most *easterly* point is Buchan Ness.

The most *westerly* point is Ardnamurchan Point.

¹ Scotland, the "land of the Scots." The Scots were a Celtic tribe, from the north of Ireland, who passed over and settled in Cantire about the year 503, and gradually extended their conquests until, in 843, the king of the Scots ruled over nearly the whole of Scotland north of the Clyde and Forth. The name "Scotland" came into general use about the year 950. The native Picts and their descendants, the modern Highlanders, call the country *Albyn*. To the Romans it was known as *Caledonia*.

² Or, including the islands, about 450 miles.

³ The term *loch* is uniformly given to lakes in Scotland, as it also is to the narrow inlets of the sea upon the western and northern coasts, such as Loch Fyne, and others. There is, however, an important difference between the two. The inland *lochs*, such as Loch Lomond, have *fresh water*, like the lakes of England and other countries. The *lochs* that lie along the coast, such as Loch Fyne, are arms of the sea, and consist, consequently, of salt water.

⁴ Mull, *maol*, a headland.

2. **INLETS.**—The most important inlets are :—

- (1.) On the *north*, Dunnet Bay, Kyle¹ of Tongue, Loch Eriboll.
- (2.) On the *south*, Glenuce Bay, Wigton Bay, and the Solway Firth.
- (3.) On the *east*, the Firth of Forth, the Firth of Tay, the Moray Firth, and Cromarty Firth.
- (4.) On the *west*, Loch Broom, Loch Linnhe, Loch Fyne, the Firth of Clyde, Loch Long, Loch Ryan.

3. **CHANNELS and SOUNDS.**—The principal are :—

Pentland Firth, between the Orkneys and the mainland.
 Sound of Sleat, between Skye and the mainland.
 Sound of Mull, between Isle of Mull and the mainland.
 Sound of Jura, between Jura and the mainland.
 North Minch, between Lewis and the mainland.
 Little Minch, between Hebrides and Skye.
 Sound of Islay, between Jura and Islay.
 North Channel, between Scotland and Ireland.

ISLANDS.—Scotland has above 700 islands,² forming four distinct groups, having a total area of about 3700 square miles.

1. The **Orkneys** lie immediately to the north of the mainland of Great Britain, and are divided from it by the Pentland Firth. There are altogether 67 islands, of which the principal are Pomona (or Mainland), Hoy, North and South Ronaldsha, and Westra. *Kirkwall* on the eastern, and *Stromness* on the western, coast of Pomona, are the largest towns.

2. The **Shetlands**³ lie north-east of the Orkneys and consist of about 100 islands, of which 24 are inhabited. The largest islands are Mainland, Yell, and Unst. *Total area*, 935 square miles; chief town, *Lerwick*.

3. The **Hebrides** include a great number of islands lying off the west side of Scotland, and surrounded by the waters of the Atlantic Ocean. Some of them, as the islands of Skye, Mull, and Jura, are near the mainland, and only divided from it by narrow channels. Others, as Lewis, North Uist, and South Uist, are farther off to seaward. The channel between Lewis and the mainland is called the Minch. *Lewis, Skye, Mull, Jura, and Islay* are the largest of the Hebrides. The small islets of *Iona* and *Staffa*, lying off the west side of Mull, are famous—Iona for its remains of ancient churches, and Staffa for its basaltic cavern.

4. **Islands in the Firth of Clyde**, viz., two large islands, Arran and Bute, and the islets of Great and Little Cumbray and Ailsa Craig.

MOUNTAINS.—In Scotland, as in England, the higher grounds lie chiefly on the western side of the island. But mountains cover a much larger proportional extent of Scotland than is the case with the English hills, and they reach a greater height. England is chiefly a level country, and mountains are exceptional to its general character; Scotland is principally mountainous, and its plains are of limited extent.

Scotland is naturally divided into the *Highlands* and the *Lowlands*. The Highlands embrace the northern and western portions of the country; the Lowlands, its southern and eastern districts. The Lowlands of Scotland, however, are by no means level. They embrace numerous hilly tracts, but

¹ Kyle, Gaelic, a ferry.

² A few detached islets off the coasts of Scotland deserve notice. The *Bass Rock* and *Jack Keith* are in the Firth of Forth; the *Bell Rock* is about fourteen miles east of the mouth of the Firth of Tay; the *Ailsa Craig*, in the Firth of Clyde, rises over 1000 feet

above the sea; the *Pentland Skerries*, in the firth of that name.

³ About midway between the Shetlands and the Orkneys is *Fair Island*, on which the admiral of the Spanish Armada was wrecked in 1588.

the hills are less elevated, and of more rounded form, with broader valleys between, than is the case in the Highlands.

The division between the Highlands and the Lowlands is marked by a broad plain called Strathmore,¹ which stretches across the island in the direction of north-east and south-west, from near Stonehaven on the North Sea, to Dumbarton on the Clyde. A narrower valley,² called Glenmore, extends through the Highland region, and forms a complete natural division across the island.

The mountains of Scotland are naturally divisible into three groups or systems—the Northern, Central, and Southern.

1. The **Northern System** includes the mountain-ranges and groups north of Glenmore. The highest points are *Ben³ Wyvis*, near Cromarty Firth, 3400 feet above the sea; *Ben Attow*, 4000 feet.

2. The **Central System** comprises the *Grampians*, the highest mountains of Scotland, which stretch across the country in the direction of east and west. *Ben Nevis*, which is the highest of the Grampians, reaches 4406 feet above the sea, and is the highest mountain, not only in Scotland, but in the British Islands. The other principal heights are *Ben Macdhui*, 4300 feet; *Cairntoul*, 4200 feet; *Ben Avon*, 4000 feet; *Ben More*, 3900 feet; *Ben Lomond*, 3200 feet.

To the south of the Grampians are the minor hill ranges which form the southern boundary of Strathmore, and known as the *Sidlaw* and *Ochil Hills* and *Campsie Fells*.

3. The **Southern System** includes the *Cheviot Hills*, the *Moffat Hills*, and the *Lowthers*, and also the *Pentland*, *Moorfoot*, and *Lammermoor Hills*.

The highest points are:—*Broadlaw*, 2700 feet; *Hart Fell*, 2260 feet, at the head of Tweeddale; *Pentland Hills*, 1890 feet; *Moorfoot Hills*, 2130 feet; *Lammermoor*, 1750 feet.

PLAINS.—Owing to the broken nature of the country there are no plains of any great extent. The principal are the *Plain of Caithness*, in the extreme north; the *Plain of Cromarty*, along both sides of the firth of that name; *Strathmore*, between the Grampians and the Sidlaw and Ochil Hills; the *Carse of Gowrie*, between the Sidlaw Hills and the Tay.

Besides the above we may notice also the valleys or *dales* of southern Scotland and the *glens* of the Highlands. Of the former the most noted are *Clydesdale*, *Tweeddale*, *Teviotdale*, *Eskdale*, through which flow the rivers so named. Of the latter the most important is *Glenmore*, which extends right across the country from Loch Linnhe to the head of Moray Firth.

RIVERS.—Most of the larger rivers of Scotland belong to the east side of the island, and discharge their waters into the North Sea. The chief of them are the *Tweed*, *Forth*, *Tay*, *Dee*, *Don*, *Spey*, and *Ness*. The principal rivers on the west and south-west coasts are the *Clyde*, *Ayr*, and *Nith*.

¹ That is, "the great strath."

² It is through this valley that the Caledonian Canal has been formed, by joining the waters of the lakes which occupy a large portion of its bed. Glenmore means "the great glen."

³ The following etymologies of the names of Highland peaks may be useful:—*Ben*,

mountain; *more* (Welsh, *maur*), great; *Ben More*, great mountain; *Ben Dearg*, red mountain; *Ben Wyvis*, mountain of terror; *Ben Attow*, rush mountain; *Ben Macdhui*, black swine mountain (cf. Welsh *moch*, swine, and *du*, black); *Ben Nevis*, mountain of death; *Cairngorm*, blue mountain.

1. The *Tweed* rises in the Lowthers, and has a *length* of 96 miles and a *drainage area* of 1870 square miles. It is noted for its salmon fisheries, and is unnavigable above Berwick.

2. The *Forth* rises on Ben Lomond, and at Alloa falls into the firth to which it gives its name. Its windings form the "Links of Forth." Length, 60 miles; drainage area, 645 square miles. The Firth of Forth is about 50 miles long, and is navigable for the largest vessels.

3. The *Tay* is the largest river in Scotland, and carries more water to the sea than any other river of Great Britain. It has a length of 105 miles, and drains an area of about 2400 square miles. Navigable to Perth.

4. The *Clyde*, 98 miles in length, rises in the Lowthers, and drains about 1580 square miles. Near Lanark are the celebrated "Falls of the Clyde." The Clyde is navigable to Glasgow, and is commercially the most important of the Scottish rivers, being sufficiently deep in its lower part to admit ships of the largest size.

5. The *Dee* has its source on the Cairngorm, 4060 feet above the sea, considerably higher than any other British river. Length, 87 miles.

6. The *Spey*, 96 miles long, is the most rapid and destructive of British rivers, and is unnavigable throughout.

LAKES.—Scotland abounds in lakes, especially its Highland region. Most of them are of long and narrow shape, and of great beauty. The principal are Loch Lomond, Loch Tay, Loch Awe, Loch Ness, Loch Maree, and Loch Leven.¹

1. *Loch Lomond* is the largest lake in Scotland, and also in Great Britain. It is 24 miles long, 7 miles broad, and has an area of 45 square miles. It contains about 30 islands, and is unquestionably "the pride of our lakes," exceeding all others in extent and beauty.

2. *Loch Katrine*, 9 miles long and $\frac{3}{4}$ mile broad, is the chief attraction of the beautiful tract known as the *Trossachs*,² and is the scene of Scott's "Lady of the Lake."

3. *Loch Awe*, 23 miles long and nearly $1\frac{1}{2}$ mile broad, is surrounded by lofty mountains, and is one of the most beautiful of Scottish lakes.

CLIMATE.—The climate of Scotland is slightly colder than that of England, owing to its more northerly situation. Within the Highlands, especially, the winter is more severe; rain is also more abundant there than in the Lowland region.

The *mean annual temperature* of Edinburgh is 47.1°; Aberdeen, 49.1°; and Wick, 46.9°. The mean winter temperature of the Shetlands is about the same as that of the Isle of Wight. The *annual rainfall* is from 22 to 33 inches on the east coast, and from 30 to 44 inches on the west coast.

NATURAL PRODUCTIONS.—The natural productions of Scotland are substantially the same as those of England, with a few exceptions.

1. **ANIMALS.**—Same as those of England. *Deer*, however, are much more abundant, chiefly in the game forests of the Highlands. Clydesdale is noted for a fine breed of *horses*, and the Shetland Islands for the hardy "Shetland" *ponies*.

2. **VEGETATION.**—The vegetation consists for the most part of plants of hardier growth than those of England. The *Scotch fir*, and other members of the pine tribe, are abundant upon the mountain-sides, and the heather imparts its purple colour to their lower slopes. Several of the richer fruits

¹ On one of the islands in Loch Leven stood the castle in which Mary Queen of Scots was imprisoned.

² That is, *narrow*.

and plants that thrive on the southern coasts of England (as the peach and apricot) will not come to perfection in Scotland; and the hardier grains—*oats* and *barley*—are those most generally grown. Fine crops of *wheat*, however, are grown in many districts of southern Scotland.

3. **MINERALS.**—The mineral resources of Scotland are very great. As in England, coal and iron are the staples of its wealth in this regard, and they form the basis of its manufacturing prosperity. *Coal* and *iron* occur in vast abundance within an extensive district of the Lowlands—that which stretches across the country from Fifeshire on the east side to Ayrshire on the west, embracing the extensive plain between the Firths of Forth and Clyde. *Lead* is worked in some districts of southern Scotland. Good *building-stone* also occurs there. *Granite* is obtained from the Grampians, and also from the Isle of Arran, and some other localities.

INHABITANTS.—Scotland is much less populous than England—both *absolutely* (that is, according to the actual number of its inhabitants) and *relatively* (or in the ratio of population to extent of surface). In 1871 it contained 3,360,000 inhabitants. The Lowland division of the country is much more populous than the Highlands.

The exact number in 1871 was 3,360,018, an average of only 112 to the square mile; while the average density of population in England is 422 per square mile. The population in 1880 was estimated at 3,661,292.

RACE and LANGUAGE.—The people of the Highlands and the Lowlands are two distinct races, speaking different tongues. The language of the Lowlands resembles the English tongue; that of the Highlands is a distinct dialect, called the *Gaelic*. But the Highland population are gradually growing accustomed to the use of the English language, and their native tongue becomes, with each succeeding generation, less prevalent.¹

INDUSTRIAL PURSUITS.²—Scotland is principally a manufacturing and commercial country, but agriculture, though necessarily limited, is in a flourishing condition.

1. **Agriculture** is perhaps nowhere more skilfully practised than in the Lowlands. Only one-fourth of the country is arable, and about one-half of this is in permanent pasture or in grass (clover, &c.) The chief objects of culture are *oats*, *barley*, *rye*, *wheat*, *potatoes*, and *turnips*. But the staple crop throughout Scotland is *oats*. *Turnips* are largely grown in Haddington, and *potatoes* throughout the eastern counties.

2. In the Highlands the *rearing of cattle*, with the extensive *fisheries* pursued off the coasts, are the principal branches of industry. In the southern Lowlands, also, great numbers of cattle are reared, chiefly for the supply of the English markets.

3. **Manufactures** are largely pursued in Lowland Scotland, chiefly within the coal and iron district between the Clyde and the Forth, and in the counties of Fife and Forfar upon the eastern coast.

¹ It is commonly supposed that the Lowland Scotch is merely a dialect of or a corruption of the *English* language. But while the latter is based chiefly upon the Anglo-Saxon, the former is essentially derived from the Norse or Scandinavian. Now both the Anglo-Saxon and Norse were branches of the same old Teutonic; hence the similarity between the Lowland Scotch and the *English*. The *Gaelic* is a Celtic dialect, and is

allied to the *Welsh*. Their present form, however, is such that a Highlander cannot understand Welsh, or a Welshman the *Gaelic*.

² The percentage of persons engaged in the various industries in Scotland is as follows:—*Agriculture*, 22 per cent.; *manufactures*, 36 per cent.; *mining*, 17 per cent.; *commerce*, 10½ per cent.; *professional, domestic*, &c., 14½ per cent.

The *cotton* manufacture, which is the first in order of importance, characterises Glasgow, and the neighbouring tract of country on the western side of the island, within the counties of Lanark and Renfrew: the *linen* manufacture is found chiefly in the neighbourhood of the east coast—at Dundee, in Forfarshire, and Dunfermline, in Fifeshire. The making of *woollen fabrics*, as tartans (or plaids), carpets, &c., is pursued in many parts of the Lowlands, especially in the neighbourhood of Stirling and Kilmarnock.

4. **Commerce.**—The commerce of Scotland resembles that of England, and is considerable and rapidly increasing. The *imports* are chiefly raw materials for manufacture and colonial produce; the *exports* are manufactured goods and agricultural produce, coal, iron, and fish.

The commercial metropolis of Scotland is *Glasgow*. Other important ports are Leith, Greenock, Aberdeen, Dundee, Irvine, and Montrose. *Shipbuilding*, especially iron and steel steamships, is extensively carried on at Glasgow, Greenock, and Port-Glasgow.

INTERNAL COMMUNICATION.—Excellent roads, even in the Highlands; several canals; and about 2700 miles of railways.

1. **Roads.**—There are nearly 4000 miles of excellent *turnpike roads*. Several of those in the Highlands were constructed after the collapse of the rebellion of 1745.

2. **Canals.**—The two principal canals are the *Forth and Clyde Canal*, connecting the Clyde near Renfrew with the Forth near Grangemouth; the *Caledonian Canal* through Glenmore, the three locks in which are joined by about twenty-three miles of cuttings; thus affording a passage from the Atlantic to the German Ocean without rounding the northern coast of Scotland. The *Crinan Canal*, across the peninsula of Cantire, joins Loch Fyne and the ocean.

3. **Railways.**—The principal main lines of railway are:—

- (1.) The *Caledonian*, from Carlisle to Edinburgh, Glasgow, and Aberdeen.
- (2.) The *North British*, from Berwick to Glasgow, Edinburgh, and Dundee.
- (3.) The *Glasgow and South-Western*, from Glasgow to Carlisle, with branches to Portpatrick and Girvan.
- (4.) The *Highland*, from Perth to Thurso and Wick.
- (5.) The *Great North of Scotland*, from Aberdeen to Peterhead, Banff, and Lossiemouth.

COUNTIES and TOWNS.—Scotland is divided into thirty-three counties. They are of very unequal sizes, more so than the English counties. Clackmannanshire, the smallest, is only one-third part the size of Rutland. Inverness-shire, the largest among them, is nearly four-fifths the size of Yorkshire.

Thirteen of the counties are within that portion of Scotland which lies to the south of the Firths of Forth and Clyde, and are entirely within the Lowlands. The names of these thirteen are Edinburgh, Linlithgow, Haddington, Berwick, Roxburgh, Selkirk, Peebles, Dumfries, Kirkcudbright, Wigton, Ayr, Lanark, and Renfrew. *Three* of the counties that are to the northward of the Firth of Forth are also wholly within the Lowland region, namely, Fife, Kinross, and Clackmannan.

In all, therefore, *sixteen* of the counties are comprised entirely within the Lowlands. Of the others several are partly Lowland counties and partly within the Highlands. All the counties that extend along the east coast of the country, Perth, Forfar, Kincardine, &c., belong in part to the Lowland region; but they stretch westward into the rugged mountain region of the interior, and their larger portion falls within the Highland limits.

Bute, Argyle, Inverness, Ross, Cromarty, and Sutherland are almost exclusively Highland counties. Stirling, Dumbarton, Perth, Forfar, Kincardine, Aberdeen, Banff, Elgin, Nairn, and Caithness are partly Highland. Buteshire consists of the two large islands of Arran and Bute, in the Firth of Clyde, with a few smaller islets.

The Orkney and Shetland Islands form a distinct county. Of the Hebrides, some belong to Argyle, some to Inverness, and others to Ross.

In several parts of Scotland the ancient territorial names of particular districts are still familiarly used. Thus the three counties that extend along the southern shore of the Firth of Forth are known as the *Lothians*,—Edinburgh corresponding to Mid-Lothian, Haddington to East-Lothian, and Linlithgow to West-Lothian. The counties of Kirkcudbright and Wigton, in the south-west, are popularly known as *Galloway*. Forfarshire is still often referred to by its former name of *Angus*, and the county of Elgin by that of *Moray* (or *Murray*).

I. THIRTEEN SOUTH LOWLAND COUNTIES.

1. **EDINBURGH**, or Mid-Lothian (*area*, 367 square miles; *population*, 388,000), is distinguished by its agricultural industry, and also as the metropolitan county of Scotland. It is level and well cultivated in the north, but hilly in the south.

The city of **Edinburgh** (*population*, 228,000) occupies a striking situation near the shore of the Firth of Forth (about two miles distant), and a commanding rock which rises high above the Old Town is crowned by its castle—a strong fortress of ancient date, and the scene of numerous events of importance in Scottish annals. A broad valley forms a well-marked natural division between the New Town of Edinburgh and the older portion of the city. Holyrood, the ancient palace of the Scottish sovereigns, is within the Old Town, at the opposite extremity to the Castle Hill. Edinburgh is the seat of one of the Scottish Universities, and ranks as the literary metropolis of the north. Arthur's Seat, a lofty crag rising to 822 feet above the sea, overlooks the city from the south-east.

Leith (*population*, 61,000), on the coast of the neighbouring firth, forms the port of Edinburgh, and is joined to that city by continuous lines of building. On either side of Leith are numerous thriving fishing and trading ports—Newhaven and Granton to the westward, Portobello and Musselburgh on its eastern side. The battle of *Pinkie* (1547) was fought in the neighbourhood of Musselburgh, near the right bank of the little river Esk, which enters the firth at that point. **Dalketh**, in the interior of the county, is a small town at the junction of the two arms of the river Esk.

2. **LINLITHGOW**, or West-Lothian (*area*, 127 square miles; *population*, 43,000), is a small agricultural county, but its surface is generally irregular.

Its chief town, **Linlithgow** (*population*, 3900), possesses the remains of an ancient palace, in which Mary Queen of Scots was born in 1542. **Bathgate** is a thriving town in the interior. **Bo'ness** trades in coal and iron.

3. **HADDINGTON**, or East-Lothian (*area*, 280 square miles; *population*, 38,000), is agriculturally the foremost county in Scotland, being for the most part level and fertile.

The town of **Haddington** (*population*, 4000), its capital, stands on the river Tyne—a less important stream than the English river of that name. **Dunbar**, a thriving port on the coast of this county, is of great note in

Scottish annals, frequently besieged, and alternately in Scottish and English hands. Two battles fought in the immediate vicinity add to the chequered interest of its fortunes—one a victory gained by Edward I. over the army of Baliol in 1296, the other a more important victory which Cromwell obtained over the Scottish army in 1650. **North Berwick**, on the coast of Haddington, lies at the entrance of the Firth of Forth. **Prestonpans**, also on the shore of the firth, and a few miles to the east of Edinburgh, is noteworthy for the defeat of the English forces by the troops of Prince Charles Edward in 1745.

4. **BERWICK** (or the Merse, as it is called) adjoins the English border, reaching from the Lammermoor Hills to the banks of the Tweed. Its industry is chiefly agricultural. *Area*, 464 square miles; *population*, 35,000.

The county town is **Greenlaw** (*population*, 800). The other towns are **Dunse**, **Coldstream**, **Earlston**, and **Eyemouth**—the last a seaport situated a short distance to the south of St. Abb's Head.

5. **ROXBURGH** stretches from the banks of the Tweed to the summits of the Cheviot Hills, including the fine pastoral district of Teviotdale—watered by the river Teviot, an affluent of the Tweed. It is level in the north, but hilly in the south. Its industries comprise the woollen manufacture, agriculture, and the rearing of cattle and sheep. *Area*, 670 square miles; *population*, 53,000.

Jedburgh (*population*, 3400), its county town, is on the little stream of the Jed, which joins the Teviot. A few miles north-west of Jedburgh is **Ancrem Moor**, where the Earl of Angus defeated an English army in 1545. **Hawick** (*population*, 16,000), in upper Teviotdale, and **Kelso**, on the Tweed, are both of larger size. **Melrose**, famous for the ruins of its well-known abbey, and **Abbotsford**, formerly the residence of Sir Walter Scott, are in this county, both on the south bank of the Tweed.

6. **SELKIRK**, a pastoral and hilly region, includes the tract of country called **Ettrick Forest**, watered by the river **Ettrick**, which joins the Tweed, receiving on its way the tributary stream of the **Yarrow**. *Area*, 260 square miles; *population*, 25,000.

The county town, **Selkirk** (*population*, 6000), is on the right bank of the **Ettrick**. On the opposite bank of the river is **Philiphaugh**, the scene of **Montrose's** surprise and defeat in 1645. The town of **Galashiels** (*population*, 12,000), to the northward of the Tweed (on the little river **Gala**), has a flourishing manufacture of woollen cloths.

7. **PEEBLES**, a pastoral and hilly region, embraces the upper portion of **Tweeddale**, and is entirely agricultural. *Area*, 356 square miles; *population*, 13,000.

The county town, **Peebles** (*population*, 2000), is on the north bank of the Tweed. **Inverleithen**, visited for the sake of its mineral waters, is farther to the east, at the point where the little stream of the **Leithen** joins the Tweed.

8. **DUMFRIES**, which is agricultural in its lower grounds, and pastoral towards the interior, includes the greater part of **Nithsdale** (or the valley of the river **Nith**, which enters the **Solway Firth**), and also the valleys of the **Annan** and the **Esk**—**Annandale** and **Eskdale**. *Area*, 1103 square miles; *population*, 6000.

The town of **Dumfries** (*population*, 17,000), its capital, stands on the

left bank of the Nith ; it is the largest town in the south-west portion of Scotland, and a great market for agricultural produce. **Annan** and **Moffat** are small places in this county.

9. **KIRKCUDBRIGHT** is hilly and pastoral in the north, and agricultural along the shores of the Solway Firth on the south. *Area*, 954 square miles ; *population*, 42,000.

Its only town, **Kirkcudbright** (*population*, 2500), lies near the mouth of the river Dee, which enters the Solway Firth.

10. **WIGTON**, at the south-west extremity of Scotland, is also a pastoral region. *Area*, 512 square miles ; *population*, 38,000.

The small town of **Wigton** (*population*, 1700), its capital, is on the shore of Wigton Bay. **Stranraer**, at the head of Loch Ryan, and **Port-Patrick**, on the shore of the North Channel, are small towns. Port-Patrick is only 22 miles distant from Donaghadee, on the coast of Ireland.

11. **AYRSHIRE**, sometimes called the "Dairy of Scotland," embraces a pastoral tract of country in the south and east, but includes a manufacturing and coal-mining district in the north and along the sea-coast. *Area*, 1149 square miles ; *population*, 217,000.

Its county town, **Ayr** (*population*, 20,800), at the mouth of the river Ayr, has considerable trade. Robert Burns was born in its vicinity—a short way to the southward, in a cottage beside the stream of the Doon. **Kilmarnock**, on the river Irvine, has extensive woollen manufactures. **Ardrossan**, **Saltcoats**, **Troon**, and **Girvan** are thriving seaports.

12. **LANARKSHIRE** includes Clydesdale, the upper part of which is a pastoral region. But its lower portion is a populous seat of manufacturing and commercial industry. *Area*, 889 square miles ; *population*, 904,000.

Glasgow (*population*, 511,000), on the banks of the Clyde, within the north-western border of Lanarkshire, is the centre at once of the cotton manufactures, the iron trade, and the foreign commerce of Scotland. It is, indeed, the commercial metropolis of North Britain, and is greatly superior to any other city of Scotland in number of inhabitants. Glasgow is, besides, the seat of an ancient university. A short distance to the southward is the battlefield of *Langside*, the scene of the last contest on behalf of the ill-fated Mary Queen of Scots (A.D. 1568).

Airdrie, to the east of Glasgow, is in the midst of extensive coal and iron works, and has also cotton and other manufactures. **Hamilton** and **Lanark** are smaller towns. Below Hamilton, on the Clyde, is *Bothwell Bridge*, the scene of a well-known skirmish between the Covenanters and the royal forces in 1679. Lanark (*population*, 4900), in upper Clydesdale, is the county town. Below it are the picturesque Falls of the Clyde, formed by the descent of the river over successive ledges of rock.

13. **RENFREWSHIRE** (*area*, 254 square miles ; *population*, 262,000), is manufacturing and commercial. It includes part of the coal and iron district, and possesses several flourishing ports on the lower Clyde.

Renfrew (*population*, 4800), the county town, is small and otherwise unimportant. But **Paisley**, seven miles west of Glasgow, shares in the manufacturing industry of that city. **Port-Glasgow** and **Greenock** are both on the Clyde ; the latter is the seat of an extensive foreign trade. **Johnston**, south-west of Paisley, is an inland town.

II. SEVEN NORTH LOWLAND COUNTIES.

1. **DUMBARTONSHIRE** (or Lennox) is Highland and pastoral in its northerly division, including the chief part of the shores of Loch Lomond. In the south it reaches to the banks of the Clyde. A detached portion of the county is in the plain farther to the eastward. *Area*, 270 square miles; *population*, 75,000.

The chief town, **Dumbarton** (*population*, 13,000), stands on the Clyde at the mouth of the little river Leven, which forms the outlet of Loch Lomond. The vale of Leven is a busy scene of manufacturing industry, with cotton print and calico works, &c. **Kirkintilloch**, a manufacturing town, is to the north-east of Glasgow.

2. **STIRLINGSHIRE** is manufacturing and trading in its eastern division, which is within the Lowland region; but its westerly portion stretches into the Highlands. The fertile "Carse of Stirling" is highly cultivated. *Area*, 467 square miles; *population*, 112,000.

The county town, **Stirling** (*population*, 16,000), stands on the south bank of the Forth; its fine castle, on a lofty rock which overlooks the town, has been the scene of many events important in Scottish annals. Stirling has manufactures of woollen and cotton fabrics. **St. Ninians** and **Bannockburn**, both populous villages in its immediate vicinity (forming, in fact, suburbs of the town), also possess extensive woollen manufactures. Bannockburn recalls the memory of Bruce's great victory over the English in 1314. **Falkirk**, in this county, is a great centre of trade, and is historically noteworthy on account of two engagements which have taken place in its vicinity—one, a victory gained by Edward I. over the Scottish army (1298); the other, a defeat sustained by the royal forces at the hands of Prince Charles Edward's followers in 1746. **Kilayth**, on the southern border of the county, was the scene of Montrose's brilliant (though fruitless) victory in 1646.

3. **CLACKMANNANSHIRE** is enclosed by the counties of Perth and Stirling, and is the smallest county in Scotland. It is partly within the coalfield. *Area*, 50 square miles; *population*, 25,000.

Alloa (*population*, 6400), its largest town (near the left bank of the Forth), has some trade in coal and iron. **Clackmannan** (*population*, 1150) is the county town.

4. **KINROSS** is enclosed between the counties of Fife and Perth, and is, on the whole, well cultivated. It includes Loch Leven—the largest lake within the Lowland region. *Area*, 78 square miles; *population*, 6000.

Its only town, **Kinross** (*population*, 2000), is on the west shore of the lake. The castle of Loch Leven, on an island in the lake, was the temporary prison of Mary Queen of Scots, and the scene of her romantic escape in 1568, immediately prior to the battle of *Langside*.

5. **FIFESHIRE**, a Lowland county, forms a peninsula, lying between the Firths of Forth and Tay. Its interior is hilly and pastoral, but a broad and fertile belt of country stretches along the coast,¹ on which are numerous seaport and fishing-towns. *Area*, 513 square miles; *population*, 171,000.

¹ James VI. compared Fife to a "beggar's" contrast between its fertile sea-board and mantle fringed with gold," alluding to the comparatively sterile interior.

Cupar (*population*, 5000) is the county town. Among the other towns are **Dunfermline**, **Kirkcaldy**, **St. Andrews**, and **Falkland**. **Dunfermline** is a great seat of the linen manufacture, and has an ancient abbey church, within which are the remains of Robert Bruce. **St. Andrews** is the seat of the oldest of the Scottish universities.

6. **FORFARSHIRE**, or **Angus**, is principally within the Lowland region, and is (with **Fifeshire**) the chief seat of the linen manufacture, which is extensively pursued in several of its towns. *Area*, 890 square miles; *population*, 266,000.

Forfar (*population*, 12,000), the county town, lies in the heart of the great plain of **Strathmore**. **Dundee** (142,000), on the **Firth of Tay**, is of larger size, and is one of the most considerable of the Scottish seaports. **Montrose**, also a thriving seat of trade, is on the coast of the **North Sea**. Midway between **Montrose** and **Dundee** is **Arbroath** (or **Aberbrothock**), the nearest port to the celebrated **Bell Rock**, or **Inchcape**. **Brechin** and **Cupar-Angus** (so called to distinguish it from the county town of **Fifeshire**) are in this county.

7. **KINCARDINE**, or the **Mearns**, extends from **Forfar** to the banks of the **Dee**, and includes the most eastward portion of the **Grampian range**. But the coast division of the county is **Lowland**. *Area*, 388 square miles; *population*, 34,000.

Stonehaven (*population*, 3000), the chief town, is on the shore of the **North Sea**, and is an important herring fishing station, as also are **Bervie**, **Findon**, and other fishing ports. From **Findon**, or **Finnan**, the name "**Finnan haddocks**" is derived.

III. THREE SOUTH HIGHLAND COUNTIES.

1. **BUTESHIRE**, the most southward of the Highland counties, consists of the islands of **Bute** and **Arran**, in the **Firth of Clyde**. **Arran** is hilly, but **Bute** is level and fertile. The latter has the most salubrious climate in Scotland. *Area*, 225 square miles; *population*, 17,000.

The county town, **Rothesay** (*population*, 7100), is on **Bute**, which is moderately elevated. The channel which divides **Bute** from the mainland is called the **Kyles of Bute**. **Arran** has a more rugged surface, and furnishes some granite; its chief town is **Brodick**, a small place on the east coast.

2. **ARGYLL** embraces a rugged Highland tract on the Scotch mainland, and includes many of the adjacent islands—amongst them **Mull**, **Jura**, and **Islay**; with **Coll**, **Tiree**, **Colonsay**, and many of smaller size. **Staffa** and **Iona**, off the west coast of **Mull**, are of the number. *Area*, 3255 square miles; *population*, 76,000.

The county town is **Inverary** (*population*, 860), near the head of **Loch Fyne**. **Campbelton**, on the peninsula of **Cantire**, is of larger size. **Oban** is a rising place on the western coast, near the entrance of **Loch Linnhe**. **Glencoe**, the scene of the infamous massacre of the **Macdonalds** in 1692, is a wild pastoral valley, which adjoins the south shores of **Loch Leven**,¹ one of the estuaries of the western coast.

¹ There are two lochs bearing this name—one in **Kilnros** (the scene of **Queen Mary's** confinement and escape); the other, that

referred to above, on the border-line between the counties of **Argyll** and **Inverness**. This latter is an arm of the sea.

3. **PERTSHIRE** (*area*, 2601 square miles ; *population*, 128,000) is Lowland in the east and centre ; but its western division includes an extensive and rugged portion of the Highlands. It comprehends, in the south-west, the romantic district of the *Trossachs*, within which are embraced the wooded heights of Ben Ledi and Ben Venue, with the winding shores of Loch Katrine, Loch Achray, and Loch Venachar.

The city of Perth (*population*, 29,000) lies on the right bank of the Tay, immediately above the estuary which the river forms in its lower course. Near Perth (upon the opposite bank of the river) is *Scone*, the ancient coronation-place of the kings of Scotland. *Tippermuir*, the scene of one of the victories gained by Montrose (in 1644), during his brilliant but evanescent career of success, is a short distance to the south-west of Perth. The other towns of Perthshire—all of small size—are *Dunblane*, *Doune*, *Dunkeld*, and *Crief*. Two miles to the eastward of Dunblane is *Sheriffmuir*, the scene of an indecisive engagement between the royalist and rebel forces in 1715. The *Pass of Killiecrankie*, on the romantic banks of the Garry, which joins the Tummel¹ below the defile, is in the northern part of Perthshire. It was here that the leader of the Highland clans, Viscount Dundee, fell in the moment of victory over the forces of King William in 1689.

IV. TEN NORTH-HIGHLAND COUNTIES.

1. **ABERDEENSHIRE** (*area*, 1970 square miles ; *population*, 267,000) is Lowland towards the coast ; but its interior belongs to the Highlands. Large numbers of cattle are reared in this county for the English markets.

The city of *Aberdeen* (*population*, 105,000), its capital, situated between the mouths of the rivers Dee and Don, is one of the most commercial places in Scotland, and is distinguished for its university. At the bridge of Dee, two miles above Aberdeen, Montrose defeated the Covenanters in 1644. *Peterhead*, a flourishing port, is on the coast to the northward, and is the headquarters of the Greenland whale fishery. *Fraserburgh*, another seaport, is still farther north. *Inverury*, at the junction of the little river Ury with the Don, is a small inland town. Balmoral Castle, the Highland residence of our gracious Queen, is in this county, within the beautiful valley of the Upper Dee, near its southern bank.

2. **BANFFSHIRE** is chiefly Lowland, but penetrates the Highland region in its southerly division. The noted distilleries of Glenlivet are in this county. *Area*, 686 square miles ; *population*, 62,000.

Its chief town, *Banff* (*population*, 8000), is near the mouth of the river *Doveran*. *Portsoy* and *Cullen* are small towns on the coast.

3. **ELGIN**, or *Moray* (*area*, 531 square miles ; *population*, 43,000), is Lowland in the north, but Highland in its southwardly portion. Its climate is remarkably mild.

The town of *Elgin* (*population*, 7000), its capital, is a few miles distant from the coast, on the little river *Lossie*. *Forres* is farther to the west, near the river *Findhorn*.

4. **NAIRNSHIRE**, a small county, is partly Lowland, but becomes hilly in the south. The level districts are along the coast, and are generally fertile. *Area*, 215 square miles ; *population*, 10,000.

¹ The Tummel is an affluent of the Tay.

The town of **Nairn** (*population, 4000*) is on a small river of that name, at its entrance into the Moray Firth. *Auldearn*, a village laying a few miles south of Nairn, was the scene of one of Montrose's victories in 1645.

5. **INVERNESS** (*area, 4255 square miles; population, 90,000*) is entirely a Highland county. Ben Nevis, the highest mountain in Britain, is within its limits, which include a succession of bleak moorlands, high mountains, and narrow glens. The line of the Caledonian Canal crosses the county from north-east to south-west, passing through the narrow valley of Glenmore. The large island of Skye belongs to this county, as also do Harris, North and South Uist, and Benbecula, among those of the Hebrides lying farther to the westward.

The town of **Inverness** (*population, 17,000*), regarded as the capital of the Highlands, stands at the entrance of the river Ness into Loch Beaully (as the upper extremity of the Moray Firth is called). A few miles east is *Culloden Moor*, the scene of Prince Charles Edward's final defeat in 1746. Near Fort William, at the south-western extremity of the Caledonian Canal, and at the outlet of the river Lochie into Loch Eil, is *Inverlochry*, where Montrose gained, in 1645, the most brilliant of his victories. **Portree** is a small place on the east coast of Skye.

6. **ROSS** comprehends a rugged Highland tract, which stretches across the Moray Firth to the Atlantic coast. It includes Lewis, the largest of the Hebrides.

The county town is **Tain** (*population, 1700*), on the Firth of Dornoch. **Dingwall**, farther south, is a small place at the head of Cromarty Firth. **Stornoway** is on the island of Lewis.

7. **CROMARTY** consists of several small and detached pieces of country, enclosed by Ross-shire and the adjacent county of Sutherland.

Its only town is **Cromarty** (*population, 1300*), situated at the entrance of the magnificent estuary called Cromarty Firth—one of the finest of natural harbours. Hugh Miller, the geologist, was born in this town.

Area of Ross and Cromarty, 3151 square miles; population, 78,000.

8. **SUTHERLAND** (*area, 1886 square miles; population, 23,000*) is entirely Highland, and is the most thinly-populated county in Scotland. Immense numbers of sheep are reared in this county.

Dornoch (*population, 490*), its only town, is on the east coast, upon the northern side of the firth to which its name is given.

9. **CAITHNESS** includes the north-eastern extremity of the Scotch mainland. This country is level and generally sterile. *Area, 712 square miles; population, 38,000.*

Its chief town, **Wick**, is a flourishing seaport—the chief seat of the herring fishery. **Thurso** is on the north coast of the island.

10. The county of **ORKNEY** and **SHETLAND** consist of the groups of islands so called. Both groups are nearly, if not entirely, destitute of trees, and are bleak and barren, with the exception of a few fertile tracts in the Orkneys. *Area, 935 square miles; population, 61,000.*

Kirkwall (*population, 3900*), situated on the largest of the Orkneys (called Pomona, or Mainland), is the county town. **Lerwick** (*population, 3000*), the principal town in the Shetlands, is on the east coast of Mainland, as the principal island of that group is named.

QUESTIONS ON SCOTLAND.

1. How is Scotland bounded?
2. Give in round numbers its *length*, *breadth*, and *area*.
3. Describe the coasts of Scotland.
4. Point out upon the map the following estuaries:—the Firth of Forth, Firth of Tay, Moray Firth, Loch Linnhe, Loch Fyne, the Firth of Clyde, and Glenluce Bay.
5. Enumerate the principal islands of Scotland.
6. What great natural division has Scotland with reference to the features of its surface?
7. In what parts of Scotland are the following:—Strathmore, Glenmore, the Grampian Mountains, the Ochil Hills, and the Pentland Hills?
8. Name the highest mountains in Scotland, with their elevation in feet.
9. Describe briefly the principal rivers and lakes of Scotland.
10. In what respect does the climate of Scotland differ from that of England?
11. What minerals occur in Scotland, and in what parts of the country?
12. What are the limits of the coal and iron district of Scotland?
13. Is Scotland more populous, or less so, than England? What portions of the country are most numerously peopled?
14. What are the principal industrial pursuits of the Scotch people?
15. What constitutes the chief industrial pursuit of the Highland population?
16. In what parts of Scotland are the cotton and linen manufactures most extensively carried on?
17. What are the means of communication?
18. Into how many counties is Scotland divided? Name the largest and the smallest of the number.
19. Are the counties of Edinburgh, Dumfries, Lanark, Argyll, and Inverness within the Highlands or the Lowlands?
20. Name some of the counties which are partly Highland and partly Lowland.
21. Which two of the counties are entirely insular?
22. What three counties are called also by the names of West, Mid, and East Lothian?
23. Where are the following places:—Edinburgh, Glasgow, Dumfries, Kilmarnock, Dundee, Aberdeen, and Inverness?
24. In what counties are the following towns respectively situated:—Dunbar, Kelso, Paisley, Falkirk, Montrose, St. Andrews, Dunfermline, and Inverary?
25. Of what branches of manufacturing industry are Glasgow and Paisley the seat?
26. What manufacture is carried on chiefly at Dunfermline, Dundee, and other places on the east side of Scotland?
27. In what counties are the battlefields of Bannockburn, Pinkie, Prestonpans, and Culloden?
28. Point out the site of the following battlefields:—Langside, Kilsyth, Sheriffmuir, and Inverlochy.
29. In what part of Scotland is the district of the Trossachs? By what is it distinguished?
30. Where is the pass of Killiecrankie, and for what is it noteworthy?
31. To what country do the islands of Staffa and Iona belong? Point to their locality on the map, and say for what they are celebrated.
32. Name the chief towns of each of the following counties:—Bute, Kincardine, Ross, Sutherland, and Orkney and Shetland.

III. IRELAND.

IRELAND,¹ the third largest island of Europe, lies to the west of Great Britain.

The shores of Ireland and Great Britain make the nearest approach to each other between Fair Head and the Mull of Cantire, where the channel is only 13 miles wide, and are furthest apart along the 54th parallel, between Dundalk Bay and Morecambe Bay, a distance of about 140 miles. St. David's Head, the most westerly point of Wales, is about 50 miles distant from Carnare Point on the opposite Irish coast.

BOUNDARIES.—On three sides—the *north*, *west*, and *south*—Ireland is bounded by the Atlantic Ocean; on the *east*, by the North Channel, Irish Sea, and St. George's Channel.

Ireland is divided from *England* by the Irish Sea; *Wales*, by St. George's Channel; *Scotland*, by the North Channel.

¹ Ireland (Gaelic), western isle. The native name is *Éire*. The Romans called it *Hibernia*. To the Phœnicians it was known as

Ierne. The ancients often called it the "Emerald Isle," on account of its verdure.

EXTENT.—The superficial extent of Ireland is 31,874 square miles, or rather more than two-thirds that of England and Wales.

The *greatest length* (from Malin Head to Mizen Head) is 290 miles.

The *mean length* (from Malin Head to Hook Head) is about 220 miles.

The *greatest breadth* (from Howth Head to Slyne Head) is 175 miles.

The *least breadth* (between Donegal and Belfast) is 90 miles.

COASTS.—The western and south-western coasts of Ireland are more indented than the eastern side of the island. The entire length of coast-line, including the larger inlets, is about 2000 miles, or 1 mile of coast to every 15 square miles of area.

The *eastern* coasts of Ireland are, on the whole, flat and regular, and approach from Great Britain is obstructed by numerous sand-banks and rocks. The *northern*, *western*, and *southern* shores are, on the contrary, high, rocky, and in parts very irregular, especially in the south-west. The principal features to be noted are :—

1. **CAVES.**—On the *north*, Fair Head (or Benmore), Bengore Head,¹ Malin Head, and Horn Head; on the *west*, Rossan Point, Achil² Head, Slyne Head, Loop Head, Dunmore³ Head; on the *south*, Mizen Head, Cape Clear, and Carnsore Point; on the *east*, Wicklow Head and Howth Head.

Malin Head is the *most northerly* point of Ireland; Dunmore Head the *most westerly*; and Mizen Head the *most southerly*. Cape Clear is the extreme point of a small island which lies off the south-west coast.

2. **INLETS.**—The principal inlets are :—On the *east*, Dublin Bay, Dundalk Bay, Lough⁴ Carlingford, Dundrum Bay, Lough Strangford, and Belfast Lough; on the *north*, Lough Foyle and Lough Swilly; on the *west*, Donegal Bay, Sligo Bay, Clew Bay, Galway Bay, the estuary of the Shannon, Dingle Bay, Kenmare Bay, and Bantry Bay; on the *south*, Cork Harbour and Waterford Harbour.

Many of the numerous inlets on the southern and western shores of Ireland form splendid harbours. Those of Bantry Bay and Cork could contain the entire British navy, and no less than twelve others could float the largest men-of-war. On the east coast the only good harbour is Strangford Lough. Dublin Bay is partially protected by two granite sea-walls.

ISLANDS.—None of any considerable magnitude or importance. The principal are :—

On the *north*, Rathlin and Tory; on the *south*, Clear, Valentia,⁵ and Spike;⁶ on the *east*, Dalkey, Ireland's Eye, and Lambay; on the *west*, North Aran, Achil, Clare, and Aran.

MOUNTAINS.—Ireland is generally level in the interior, but has mountain-tracts adjoining various portions of its coast. The highest mountains are in the south-west, within the county of Kerry, but there are nowhere any continuous chains. The mountains of Ireland may be arranged as follows :—

¹ Off Bengore Head is the celebrated *Glant's Causeway*, composed of huge basaltic columns, forming a "causeway" 2000 feet long and about 300 feet broad.

² Achil, eagle.

³ Dunmore, *Dun*, a fort, and *more*, great.

⁴ The term *lough*, in Ireland, is equivalent

to *loch* in Scotland. It is given both to inland lakes and to the nearly land-enclosed inlets along the coast.

⁵ Valentia: on this island is an important telegraph station.

⁶ Spike Island is in Cork Harbour, and is fortified.

1. The **Mourne Mountains**, between Dundrum and Dundalk Bays, attain in *Slieve Donard* a height of 2788 above the sea.
2. The **Wicklow Hills**, 3000 feet high, near the east coast, are famed for their scenery.
3. The **Mountains of Donegal** culminate in *Mount Errigal*, 2462 feet in height.
4. The **Kerry Mountains**, in the south-west, form several parallel ranges, separated by Dingle Bay and other inlets. The highest point is *Carraun tuohill*, 3404 feet, in Macgillicuddy Reeks.
5. The **Galway Mountains** include the Nephni Beg Range and the mountains of Connemara.
6. Other less important ranges are the *Slieve Bloom*, 1691 feet; *Silver Mine*, 2265; *Galty*, 3008; *Knockmeildown Mountains*, 2598.

PLAINS.—A nearly level plain extends across the middle part of the island, from Dublin Bay on the east to Galway Bay on the west. In some parts of this plain, and also in the various mountain regions, there are extensive bogs.² These bogs furnish abundance of peat (used as fuel), and are capable, when drained, of being brought under cultivation.

The total extent of bog-land is upwards of 12,000 square miles, or nearly two-fifths of the entire area of the island.

RIVERS.—Ireland abounds in inland waters. The principal rivers are :—

1. On the *north*, the **Bann** (100 miles long), draining Lough Neagh, and the **Foyle**, flowing into Lough Foyle.
2. On the *east*, the **Lagan** (42 miles), flowing into Belfast Lough; the **Boyne**³ (80 miles), which is navigable to Navan; the **Liffey** (75 miles), which has the metropolis of Ireland on its banks; the **Slaney** (70 miles), flowing into Wexford Haven.
3. On the *south*, the **Barrow** (114 miles long), which rises in the *Slieve Bloom Mountains*, and is navigable to Athy, 60 miles from the sea; the **Suir** and **Nore**, tributaries of the Barrow; the **Blackwater** (90 miles), which rises in the *Kerry Mountains* and falls into Youghal Harbour; and the **Lee** (60 miles), whose estuary forms the splendid harbour of Cork.
4. On the *west*, the **Shannon** (224 miles), the longest river in Ireland, which flows from a small pond in Cavan, through Loughs Allen, Ree, and Derg, into the Atlantic, and is navigable to Lough Allen, 213 miles from the sea.

LAKES.—The largest lake in Ireland is *Lough Neagh* (150 square miles), in the province of Ulster, which is also larger than any other lake in the British Islands—being more than three times the size of Loch Lomond in Scotland, and fourteen times larger than Windermere in England. The other principal lakes are *Lough Erne*, *Lough Ree*, *Lough Derg*, *Lough Mask*, *Lough Corrib*, and the *Lakes of Killarney*.

Lough Ree and Lough Derg are within the course of the river Shannon. The Lakes of Killarney (total area, 10 square miles), in Kerry, are celebrated for their beautiful scenery. The highest mountains in Ireland rise immediately above their western shore.

¹ *Slieve*, Irish, *Slabh*, a mountain.

² Of the bogs of Ireland, the *Black Bog* is most valuable for fuel, but is not so capable

of being reclaimed as the *Red and Brown Bogs*.

³ The "Battle of the Boyne" was fought on the 1st of July 1690.

CLIMATE and VEGETATION.—The climate of Ireland is moister than that of England. This preserves a more constant verdure to the fields, and a superior freshness and brightness of colour to its general vegetation. The winters are nearly always mild, and the prevalent winds, which are from the west, are laden with the warm and moist vapours derived from the waters of the Atlantic. The vegetation native to the coasts of Kerry (the south-westernmost county) is especially distinguished for its rich luxuriance.

Ireland is at all times much more humid than England, and more rain falls on its western and southern than on its eastern coasts. Thus the average annual rainfall at Cork is 40 inches, but at Dublin only 31 inches.

PRODUCTIONS.—In respect of mineral produce, Ireland is inferior to England and Scotland in one essential particular—*coal*. This affects injuriously its manufacturing industry. The coalfields of Ireland—diffused, at wide distances apart, through the north-east, midland, and south-western counties—are of limited extent compared to those of Great Britain, and their produce small in amount. Peat is the fuel most generally consumed, but coal is imported from the English and Scotch seaports.

Ireland has ores of *copper, lead, iron*, and other mineral produce, and possesses a rich variety of *marbles and building-stones*.

INHABITANTS.—Ireland is much more populous than Scotland, but less so than England. It contained in 1881 a population of 5,159,839—fewer by about 250,000 than had belonged to it ten years earlier, and only two-thirds the amount of its population in 1841.¹ But vast numbers of the Irish people emigrated to other lands during the intervening period; and famine, with its attendant sickness and suffering, contributed to thin the population.

RACE and LANGUAGE.—The great majority of the Irish population belong to the Celtic race—the same that peoples the Highlands of Scotland and the mountain-region of Wales. It is chiefly in the province of Ulster (the north-east part of the island) that the Anglo-Saxon race is found settled on Irish soil. The people of Ulster are the descendants of immigrants from the Scotch Lowlands, and preserve the social habits and industry of Scotland. People of English descent are numerous in the neighbourhood of Dublin, and are also scattered over every portion of the island. The native language of Ireland, called *Erse*, a Celtic dialect, is rapidly becoming superseded by the English tongue.

INDUSTRIAL PURSUITS.—As regards industry, Ireland is chiefly an **Agricultural** country, and a very large portion of the land is in pasture. Cattle and pigs, with various farm-produce, constitute (over by far the greater part of the island) its chief industrial wealth. **Manufactures** flourish principally in Ulster, where the linen manufacture is pursued on a scale of great extent. Woollen and cotton goods are also made, but in smaller quantity. A great part of the **Commerce** of Ireland consists in the *export* of its agricultural produce to the English markets, and in the *import* of coal, with various articles of British and foreign produce.

The principal ports are Dublin, Belfast, Cork, Waterford, Limerick, Galway, and Londonderry. The greater part of the trade with Great Britain is carried on between these and Glasgow, Liverpool, and Bristol.

¹ Population, 1841, 8,196,597; 1851, 6,574,278.

INTERNAL COMMUNICATION—Excellent turnpike roads; over two thousand miles of railway connecting Dublin with all the large towns; several canals and navigable rivers; and efficient postal and telegraphic services.

The main lines of railway are :—

- (1.) The **Great Southern and Western**, from Dublin to Cork, Waterford, and Limerick.
- (2.) The **Midland and Great Western**, from Dublin to Galway.
- (3.) The **Irish and North Western**, from Dundalk to Londonderry.
- (4.) The **Belfast and Northern Counties**, from Belfast to Londonderry.
- (5.) The **Dublin and Belfast, Dublin and Wexford, and Dublin and Dundalk**.

The principal canals are :—

- (1.) The **Royal Canal** } connecting Dublin and the Shannon; constructed
- (2.) The **Grand Canal** } by Government at a cost of £3,000,000.

COUNTIES and TOWNS.—Ireland is divided into four provinces, which are subdivided into thirty-two counties. The provinces are, *Leinster* in the east, *Ulster* in the north, *Connaught* in the west, and *Munster* in the south.

1. **Leinster** contains twelve counties :—Dublin, Wicklow, Wexford, Kilkenny, Carlow, Kildare, Queen's County, King's County, Westmeath, Longford, Meath, and Louth.

2. **Ulster** contains nine counties :—Armagh, Down, Antrim, Londonderry, Donegal, Tyrone, Fermanagh, Monaghan, and Cavan.

3. **Connaught** includes five counties :—Leitrim, Roscommon, Sligo, Mayo, and Galway.

4. **Munster** contains six counties :—Clare, Limerick, Tipperary, Waterford, Cork, and Kerry.

1. **LEINSTER.**—The counties and principal towns in this province are as follow, the name of the county town being in each case distinguished by italic letters :—

County.	Area.	Population (1881).	Towns.
	Sq. m.		
Dublin . . .	354	418,000	<i>Dublin</i> , Kingstown.
Wicklow . . .	781	73,000	<i>Wicklow</i> , Arklow, Bray.
Wexford . . .	901	123,000	<i>Wexford</i> , New Ross.
Kilkenny . . .	796	99,000	<i>Kilkenny</i> , Callan.
Carlow . . .	346	46,000	<i>Carlow</i> , Tullow.
Kildare . . .	654	76,000	<i>Athy</i> , Naas, Maynooth.
Queen's County . .	664	72,000	<i>Maryborough</i> , Mount Mellick.
King's County . .	772	72,000	<i>Tullamore</i> , Parsonstown
Westmeath . . .	709	71,000	<i>Mullingar</i> , Athlone.
Longford . . .	421	60,000	<i>Longford</i> , Edgeworthstown.
Meath	906	86,000	<i>Trim</i> , Navan, Kells.
Louth	315	78,000	<i>Dundalk</i> , Drogheda.

Dublin (population, 320,000), the metropolis of Ireland, stands at the mouth of the river Liffey. It is less populous than either Manchester, Liverpool, or Glasgow; but is a great seat of trade, and has numerous fine public buildings. Dublin has the rank of an archiepiscopal city, and possesses two cathedrals. It is also the seat of several universities. **Kingstown** (population, 11,800), the resort of a great amount of shipping, lies on the south side of Dublin Bay. A short distance to the south of Dublin begins the romantic district of the Wicklow Mountains.

Kilkenny (*population*, 12,000), on the river Nore (an affluent of the Barrow), is second among the towns of Leinster in point of population, and is the largest inland town in the island. **Wexford** (*population*, 12,000), at the outlet of the river Slaney into Wexford Haven, is a port of considerable trade. **Drogheda** (*population*, 12,000) and **Dundalk** (*population*, 11,000), to the northward of Dublin, are also flourishing commercial ports. Drogheda stands on the river Boyne, near its mouth. The battle of the Boyne, in 1690, between the armies of William III. and James II., was fought on the banks of the river a short distance above the town. **Athlone** (*population*, 5600), on the Shannon, below its issue from Lough Ree, is a thriving inland town, partly in Leinster and partly in Connaught.

2. **ULSTER**.—The counties and principal towns in Ulster are named in the following table :—

County.	Area.	Population.	Towns.
	Sq. m.		
Armagh . .	513	162,000	Armagh, Portadown, Lurgan.
Down . .	957	269,000	Downpatrick, Newry, Donaghadee.
Antrim . .	1190	423,000	Belfast, Lisburn, Carrickfergus.
Londonderry .	810	164,000	Londonderry, Coleraine.
Donegal . .	1865	205,000	Lifford, Ballyshannon.
Tyrone . .	1260	197,000	Omagh, Strabane, Dungannon.
Fermanagh .	714	84,000	Enniskillen, Newtown Butler.
Monaghan .	500	102,000	Monaghan, Clones.
Cavan . .	746	129,000	Cavan, Bellinbet, Cottehill.

Belfast (*population*, 207,000) is the largest city of Ulster, and the chief seat of the linen manufacture of Ireland. It has also manufactures of cotton, with potteries, glassworks, &c., and a larger amount of foreign trade than any other city in the island. **Armagh** (*population*, 7800) has a great share in the linen manufacture, and is an archiepiscopal see—the ecclesiastical metropolis of Ireland. **Londonderry** (*population*, 28,000), on the river Foyle, has considerable trade, and is famous in history for the gallant defence made by its Protestant inhabitants against the besieging army of James II. in 1689. **Coleraine** (*population*, 5600), in the same county, near the mouth of the Bann, is a flourishing port.

The *Giant's Causeway*, on the north coast of Antrim, is one of the chief natural wonders of the kingdom; it is a vast assemblage of columns of basaltic rock, which line a part of the shore, and advance, by successive rows, into the sea.

3. **CONNAUGHT**.—The counties and chief towns of Connaught are as follow :—

County.	Area.	Population.	Towns.
	Sq. m.		
Leitrim . . .	613	89,000	Carrick, Leitrim.
Roscommon . .	980	131,000	Roscommon, Boyle.
Sligo . . .	721	110,000	Sligo, Castle Connor.
Mayo . . .	2131	243,000	Castlebar, Westport.
Galway . . .	2447	241,000	Galway, Tuam, Loughrea.

Galway (*population*, 14,000), seated on the shore of the fine bay called by its name, and at the mouth of a stream which issues from Lough Corrib, is the largest town of Connaught. Its position on the western coast of the island gives it importance as a packet-station for the arrival and departure of vessels communicating with the other side of the Atlantic. Some distance to the westward begins the romantic tract of country known as *Connemara*, a region of alternate hills and valleys, with enclosed lakes and mountain streams. **Aughrim**, a village in the eastern part of the county (a few miles distant from the right bank of the Suck), witnessed a decisive victory gained by the army of William III. over the troops of James II. in 1691. **Sligo** (*population*, 10,000), a port at the head of Sligo Bay, has considerable trade.

4. **MUNSTER** includes the following counties and towns :—

County.	Area.	Population.	Towns.
	Sq. m.		
Clare . .	1294	141,000	<i>Ennis</i> , Kilrush, Killaloe.
Limerick .	1064	177,000	<i>Limerick</i> , Rathkeale, Newcastle.
Tipperary .	1659	199,000	<i>Clonmel</i> , Carrick, Cashel, Tipperary.
Waterford .	721	113,000	<i>Waterford</i> , Dungarvan, Lismore.
Cork . .	2885	492,000	<i>Cork</i> , Youghal, Bandon, Kinsale.
Kerry . .	1853	200,000	<i>Tralee</i> , Killarney, Listowel.

Limerick (*population*, 38,000) is second in size among the cities of Munster, and is rich in historic memories. It was in former days the stronghold of the Roman Catholic cause, and sustained two memorable sieges in behalf of King James II. in 1690–91. Limerick stands on either bank of the Shannon, a short way above the estuary. **Clonmel** (*population*, 10,000), on the Suir, is an inland town of some importance. **Waterford** (*population*, 22,000), also on the Suir, a short way above its junction with the Barrow, shares largely in the export trade of the island, and has extensive commercial relations with Bristol.

Cork (*population*, 78,000) is the third city in Ireland in point of population, and is largest among the cities of Munster. It stands on the Lee, immediately above the entrance of that river into Cork Harbour. Cork has great foreign trade. **Queenstown** (at which the larger class of vessels belonging to Cork load and discharge their cargoes) is on an island in Cork Harbour. **Youghal** (*population*, 6000) and **Kinsale** (*population*, 4000), one to the east, the other westward of Cork, are thriving seaports, at the mouths, respectively, of the rivers Blackwater and Bandon.

The varied character of the south-western shores of Ireland deserves especial notice. Of its many inlets the finest is *Dingle Bay*, which penetrates inland for upwards of thirty miles. *Valentia Island* lies at its entrance, on the southern side. The beautiful *Lakes of Killarney*, in this part of Ireland, are three in number—an Upper, Middle, and Lower Lake. The town of **Killarney** (*population*, 5000) is close beside the lower lake.

QUESTIONS ON IRELAND.

1. By what is Ireland divided from Great Britain, and how is it bounded?
2. Describe briefly the coasts, and name the principal capes and inlets of Ireland.
3. Distinguish between the portions of Ireland that are mountainous and those which possess a level surface.
4. Name the highest mountains of Ireland.
5. Enumerate the chief rivers of Ireland.
6. Name the principal lakes of Ireland. Which is the largest? and what proportion does it bear to the largest of the Scotch and English lakes?
7. Which two of the lakes belong to the course of the Shannon?
8. By what is the climate of Ireland distinguished from that of England?
9. What mineral produce has Ireland? In what particular, in this regard, is it inferior to Great Britain?
10. Is Ireland more or less populous than England and Scotland?
11. To what race do the majority of the Irish people belong?
12. In what respect do the people of Ulster differ from the population of the island in general?
13. In what does the industrial produce of Ireland chiefly consist?
14. In what part of the island does manufacturing industry flourish most, and what are the means of internal communication?
15. Into what number of counties, and into how many provinces, is Ireland divided? Name the provinces.
16. How many counties are in Leinster?
- How many in Ulster, Connaught, and Munster respectively?
17. Name the counties within (1) Leinster; (2) Ulster; (3) Connaught; (4) Munster.
18. In what counties are Dublin, Athy, Maryborough, Tullamore, and Dundalk respectively?
19. On what rivers are Dublin, Kilkenny, Wexford, Drogheda, and Athlone?
20. What noteworthy event distinguishes the neighbourhood of Drogheda?
21. What place ranks first, in point of size, among the cities of Ulster, and by what kind of industry is it distinguished?
22. What city ranks as the ecclesiastical metropolis of Ireland, and in what county is it?
23. On what rivers are Londonderry and Coleraine situated?
24. What historical event distinguishes Londonderry?
25. Where is the Giant's Causeway, and of what does it consist?
26. Describe briefly the largest city of Connaught.
27. In what county is the village of Aughrim, and for what is it noteworthy?
28. What place is largest, and what second in size, among the cities of Munster?
29. Upon what rivers are Cork, Kinsale, Limerick, Waterford, and Clonmel?
30. For what is Limerick historically distinguished?
31. In what county are the Lakes of Killarney?

IV. THE UNITED KINGDOM.

GOVERNMENT AND FINANCE, ARMY AND NAVY, EDUCATION,
RELIGION, COLONIES, AND FOREIGN POSSESSIONS.

GOVERNMENT and FINANCE.—The United Kingdom of Great Britain and Ireland constitutes, in form of government, *an hereditary and limited monarchy*. The executive power is in the hands of the Sovereign; the legislative power is divided between the Sovereign, the House of Peers, and the House of Commons—the last being a representative assembly, elected by qualified classes of the people at large. The House of Commons alone has the right to regulate the taxes and expenditure of the kingdom, and the Ministers of the Crown are responsible to it for their public pro-

ceedings. The people of the British Islands thus enjoy the blessings of a free constitution. The expression of opinion is free to all classes.

In 1880 the *House of Lords* consisted of 537 members, of whom 16 were Scottish, and 28 Irish, representative peers. The *House of Commons* had, in 1880, 652 members, of which 487 represented England and Wales, 60 Scotland, and 105 Ireland. Any member of the House of Commons wishing to resign, does so by accepting the nominal office of the Stewardship of the Chiltern Hundreds.

The **Revenue** of the United Kingdom for the year ending March 31, 1880, amounted to £70,357,079; the **Expenditure** to £73,197,777. On the same date the **National Debt** amounted to £774,044,235.

The three principal *sources of revenue* in 1879-80 were the customs, £19,326,000; excise, £25,300,000; and stamps, £10,316,103. The principal *branches of expenditure* were £27,488,185 for interest and management of the national debt; army, £15,025,213; civil service, £14,511,876; navy, £10,225,947.

ARMY and NAVY.—In 1880 the regular army (inclusive of the forces in India and the colonies) numbered nearly 240,000 officers and men, with a reserve of 48,500. The irregular army (militia and volunteers) numbered 350,000. In time of war, over 700,000 men could be put in the field. The navy, the most powerful in the world, consisted of 246 ships in commission, of which 68 were ironclads.

EDUCATION.—On the whole good, especially in Scotland, though not as yet so far advanced as in some of the continental countries. *Elementary Education* is given in public schools, under Government inspection. *Higher Education* is provided for in grammar schools, higher class public schools, and colleges, and universities.

Every district in Great Britain is now provided with good elementary schools, a large proportion of which are under the control of local "School Boards," who are invested with great powers to further elementary education. Of the higher class public schools the most important are those at Rugby, Eton, and Harrow, in England; Edinburgh, Glasgow, and Aberdeen, in Scotland; and the Royal Schools at Armagh, &c., in Ireland. There are thirteen universities in the United Kingdom, viz., Cambridge, Oxford, London, Durham, Manchester (Victoria), in England; Aberdeen, St. Andrews, Glasgow, and Edinburgh, in Scotland; University of Dublin, and the Catholic University, Queen's University, and the Royal University, in Ireland.

RELIGION.—The *Protestant religion* almost uniformly prevails in England and Wales, and also in Scotland. The established form of worship in the former country is that embodied in the ritual of the Church of England, from which, however, there are numerous dissenting communities. The English Church is under the government of two archbishops and twenty-eight bishops.

In Scotland, the Presbyterian Church, under the General Assembly of Divines, is the established form of church government. But there is a numerous body of seceders from its ranks.

The Protestant Church of Ireland (disestablished in 1869) is under the government of two archbishops and ten bishops. The great majority of the Irish people are *Roman Catholics*.

In 1878 it was estimated that there were 13,500,000 members of the Established Church, about 10,000,000 Dissenters, and 1,000,000 Roman Catholics, in England and Wales. In Scotland the Dissenters are more numerous than the members of the Established Church. In Ireland there were, in 1881, 3,951,888 Roman Catholics, 635,670 Protestant Episcopalians, 485,503 Presbyterians, the rest being Methodists, Baptists, &c. In 1876 it was estimated that the Jews resident in the kingdom numbered 51,250.

COLONIES.—Besides Great Britain and Ireland, the British Empire embraces a vast number of colonies and dependencies, including amongst them territories in every quarter of the globe. These are briefly enumerated in the following list:—

IN EUROPE.		IN AMERICA.
Heligoland.	Malta.	Dominion of Canada.
Gibraltar.	Cyprus.	Newfoundland.
		Bahamas.
		Bermudas.
		West Indies (Jamaica, &c).
		British Guiana.
		Honduras.
		Falkland Islands.
IN ASIA.		IN AUSTRALASIA.
British India.	Aden.	New South Wales.
Ceylon.	Hong-Kong.	Victoria.
Straits Settlements.	Labuan.	South Australia.
		Western Australia.
		Queensland.
		Tasmania.
		New Zealand.
		Fiji Islands.
IN AFRICA.		
Gambia.		
Sierra Leone		
Gold Coast.		
Lagos.		
The Cape Colony and dependencies.		
Natal; Transvaal.		
Ascension; St. Helena; Mauritius.		

The *area* and *population* of the British Empire are as follow:—

	Area.	Population.
I. The United Kingdom, ...	121,115	35,240,000
II. Colonies and possessions in		
Europe, ...	120	160,000
Asia, ...	1,588,254	244,200,000
Africa, ...	270,000	1,500,000
America, ...	3,733,207	5,340,000
Australasia, ...	3,173,310	2,500,000
Various other settlements, ...	96,171	200,000
Total, ...	8,982,177	287,400,000

EXAMINATION QUESTIONS.

- Under what form of *government* is the United Kingdom of Great Britain and Ireland?
- Describe briefly the British Parliament.
- Give particulars of the Revenue, Expenditure, and National Debt of the United Kingdom.
- In what state is Great Britain as regards education?
- To what forms of religion do the majority of the people of England, Scotland, and Ireland belong to?
- Enumerate the principal British colonies in (1) Europe, (2) Asia, (3) Africa, (4) America, (5) Australasia.
- What in round numbers is (a) the area and (b) the population of (1) the United Kingdom and (2) Colonies and Possessions in various parts of the world?

FRANCE

FRANCE lies on the western side of Europe. It stretches across the continent, from the shores of the ocean to the waters of the Mediterranean. It approaches nearer to Britain than any country on the European mainland—the Strait of Dover, which divides the opposite shores of France and Britain, being only twenty-one miles across.

BOUNDARIES.—On the *north* by the English Channel and Belgium; on the *east* by Germany, Switzerland, and part of Italy; on the *south* by the Mediterranean Sea and Spain; on the *west* by the Bay of Biscay.

France is divided from—

England by the English Channel and Strait of Dover.

Belgium and Germany by an artificial frontier-line.

Switzerland by Mont Jura.

Italy by the Western Alps.

Spain by the Pyrenees.

EXTENT.—France is about three and a half times larger than England and Wales, its area amounting to 204,177 square miles.¹

The *length*, along the meridian of 2° W., is about 600 miles.

The *breadth*, along the 48th parallel, is about 540 miles.

COASTS.—France has three lines of sea-coast. Two of them are continuous—the Channel and the Bay of Biscay; the third belongs to the Mediterranean. This country is therefore well situated for maritime commerce.

The coasts of France are, except in the north-west, regular and unbroken, especially that portion between the Gironde and the Adour bordering on the Landes. The total length of coast-line is 1500 miles, of which 350 belong to the Mediterranean, 1100 to the Bay of Biscay and the English Channel, and the rest to the German Ocean.

1. **CAFES.**—Griz Nez² and La Hague on the north-west; Ushant and Bec du Raz on the west.

2. **INLETS.**—The only considerable openings are the Bay of St. Malo, and the estuaries of the Seine, Loire, Gironde, and the Gulf of Lions.³

ISLANDS.—At the entrance of the English Channel, *Ouessant* (or Ushant); in the Bay of Biscay, *Belle Isle*,⁴ *Ré*, *Oléron*, and a few others. In the Mediterranean, the group called *Iles d'Hières*, near the coast, and the large island of *Corsica*, which forms one of the departments.

The Channel Islands, off Normandy, belong to England (*vide* p. 42).

Corsica is an Italian island, but has belonged to France since 1768; *Ajaccio*, the capital, is noted as being the birthplace of Napoleon I.

¹ After the Franco-German war of 1870-71, nearly 6000 square miles of French territory were transferred to Germany.

² Griz Nez, grey nose.

³ So called from its boisterousness, and not from the city of Lyons, as erroneously supposed.

⁴ Belle Isle, the beautiful isle.

MOUNTAINS.—France is, in general, a level country ; but it is mountainous on some parts of its border-line, and is hilly in portions of the interior, towards the centre and east. The principal mountain-ranges are :—

1. The **Alps**, which divide France (in the south-east) from Italy, and rise above the snow-line.¹ *Mont Pelvoux* (13,400 feet), one of the highest points of the Alps, is within the French border. *Mont Blanc*² (15,780 feet), *Mont Viso*, and *Mont Genève* are on the frontier-line of France and Italy.

2. **Mount Jura** (5600 feet)—less elevated than the Alps—extends along the border of France and Switzerland.

3. The **Pyrenees** form the border between France and Spain, and are snow-covered in their higher peaks and ridges, though not so high as the Alps. The *Pic du Midi* (9540 feet), one of their loftiest points, is within the French border ; *Maladetta* (11,400 feet), *Mont Perdu* (10,900 feet), and others, are on the frontier-line.

A long chain of hills, only moderately elevated, stretches through the east of France, in the direction of south-west and north-east. The hills are called the *Cevennes*³ in their southern division, and the *Vosges* farther to the northward.

4. The **Cevennes** (5000 feet) bound on the west the valleys of the Rhone and Saone.

5. The **Vosges** (4000 feet) form the western limit of a portion of the Rhine valley.

6. To the westward of the Cevennes, and within the former province of Auvergne, is a group of hills which exhibit numerous extinct volcanoes,⁴ marked by their conical summits and the remains of lava and ashes which have issued from them in former ages.

With the above exception, France has a level, or merely undulating, surface. In the south-west corner of the country, between the Lower Garonne and the base of the Pyrenees, there is a remarkable tract known as the *Landes*, which is a flat sandy waste—lined by sand-hills along the coast, and backed by pine-forests towards the interior. The shepherds of the *Landes* pursue their avocation upon stilts, in order to be above the reach of the sand-drifts.

RIVERS.—France has four considerable rivers, besides many of less size. The four great rivers are the *Seine*, the *Loire*, the *Garonne*, and the *Rhone*. The first three are entirely within the French territory. The upper part of the Rhone (above the Lake of Geneva) belongs to Switzerland. The upper portions of the Moselle and Meuse, belonging to the basin of the Rhine, are within France.

1. The **Seine** has a course of 470 miles, and falls into the English Channel at Havre. It is navigable for 340 miles, to Troyes. Paris and Rouen are on its banks.

2. The **Loire** rises in the Cevennes and has a total course of 600 miles, but is with difficulty navigable for 450 miles above Nantes.

3. The **Garonne** rises in the Pyrenees, and after a course of 360 miles enters the Gironde. Navigable to Toulouse, 270 miles from its mouth.

¹ That is, above the line at which, owing to the low temperature consequent on extreme height, the snow never melts. The height of the snow-line in the Alps is between 8000 and 9000 feet above the sea.

² *Mont Blanc*, the white mountain.

³ *Cevennes*, Celtic *cafn*, a back or ridge.

⁴ Of the extinct volcanoes of Auvergne, the highest, *Mont Doré*, attains a height of 6221 feet.

4. The Rhone rises in the Alps and after passing through the Lake of Geneva flows south by Lyons, where it is joined by the *Saone*, into the Mediterranean. Total length, 530 miles. The current of the Rhone is extremely rapid, that of the *Saone* very sluggish.

Other less important streams are the *Somme*, *Vilaine*, *Charente*, and the *Adour*. The latter is subject to floods, and drains an area of 7000 square miles.

LAKES.—Of the few lakes, the largest are the *Grand Lieu* (30 square miles), near the mouth of the Loire, and *Lake Bourget*, in eastern France.

CLIMATE.—France is, on the whole, a warmer country than England, especially in the south. The air is generally drier than in our own country. In the north of France, however, the winters are often severe.

The mean annual temperature rises from 50° F. in the north, and 54° in the centre, to 60° in the south.

NATURAL PRODUCTIONS.—The productions of northern France resemble those of England, but its *forests* are much more extensive; and the bear, wolf, and other wild animals, long extinct in Britain, are still found in the less frequented and mountainous districts.

1. **Vegetation.**—In passing from the shores of the Channel to the Mediterranean, the character of the vegetation shows the gradual rise of temperature. The *vine* is abundantly grown in the east, centre, and south of France,¹ and the *olive*, the *mulberry*, and the *fig* flourish in the plains that adjoin the Mediterranean coast.

It is in the east of France, within the provinces of Champagne and Burgundy, that the wines bearing those names are produced. A district of the south-west, adjoining the river Garonne, furnishes the wines known as claret.

2. **Minerals.**—In mineral produce France, though inferior to England, is yet rich. *Coal*² is much less abundant than is the case in Britain, but *Iron*³ is plentifully distributed, and several other metals occur. *Mineral springs* are numerous, especially in the neighbourhood of the Pyrenees.

INHABITANTS.—In 1866 the *population* of France was 38,067,064, or 181 to the square mile; but in 1872, mainly owing to the cession of Alsace and Lorraine to Germany, the population numbered only 36,102,921, or 176 to the square mile. At the last census taken in December 1876, the total number was 36,905,788, or 180 to the square mile.

Race.—Ninety per cent. are *French*—a mixed race, descended from the native Celts and the Roman and Teutonic invaders. In the north-east the *Flemish* element predominates, while in the north-west the Bretons are almost purely *Celtic*. The *Basques* inhabit the south-west districts bordering on the Pyrenees.

Language.—The *French* language is essentially Latin, and is largely used by the higher classes in every country on the continent. *German* is the common language in the north-east; *Armoric*, a Celtic dialect, in Brittany, and *Basque* in the south-west; *Italian* in Corsica.

¹ In Normandy and Brittany apple orchards take the place of the vineyards of warmer eastern and southern districts.

² Coal (1878), 17,095,530 tons.
³ Iron (1878), 3,125,170 tons.

INDUSTRIAL PURSUITS.—About three-fifths of the people are directly engaged in *agriculture*,¹ but France is also a great *manufacturing* and *commercial* country, ranking only second to Britain in these respects.

1. **Agriculture.**—The chief objects of culture are *wheat* and other grains in the northern and central parts of the country, the *vine* and the *olive* in the south. *Wines* and *brandy* are important articles of French produce. Beetroot is largely grown in the north of France, for the purpose of making *sugar* from it.

2. **Manufactures.**—The *silk* manufacture is the distinguishing feature of French manufacturing industry; but *woollen*, *linen*, and other textile fabrics are also made on a very extensive scale. The *silk manufacture* is chiefly pursued in the south, at Lyons, Nîmes, Avignon, &c.; the *woollen manufacture* principally in the north, at Rouen, Amiens, and elsewhere. *Fine linens*, *lace*, and *cotton goods* are also chiefly made in the north of France.

The making of *gloves* is an important branch of French manufacturing industry. *Watches* and *clocks*, *ornamental china* and *glass*, *jewellery*, *perfumes*, *artificial flowers*, and various articles of finery, are also characteristic of French taste and skill.

3. **Commerce.**—The foreign commerce is very considerable, and extends to the most distant parts of the globe, but is chiefly carried on with Great Britain, Belgium, Germany, and Italy.² The ports of *Marseilles*, *Bordeaux*, and *Havre* are the chief seats of maritime trade. *Bordeaux*, especially, is distinguished as the emporium of the wine trade.

IMPORTS.³—The principal articles of *import* are *raw cotton* and *silk*, *wool*, *timber*, *iron*, *coal*, and *colonial produce*.

EXPORTS.—The great articles of *export* from France are *silks* and *ribbons*, *wine* and *brandy*, *gloves*, and the various other articles mentioned above.

INTERNAL COMMUNICATION.—Good; by well-made *roads*, *navigable rivers*, *canals*, and an admirable system of *railways*.

There are about 5500 miles of *navigable rivers*, 2300 miles of *canals*, 14,000 miles of *railway*, and upwards of 36,000 miles of telegraphic lines.⁴

GOVERNMENT and FINANCE.—The present government of France is *republican* in form, the imperial dynasty (under Napoleon III.) having been expelled by a popular movement consequent upon the unsuccessful campaign of 1870. *Revenue* in 1880, £127,000,000; *Expenditure*, £122,000,000; *National Debt*, £794,000,000.⁵

Army and Navy.—The French *army* consists of 500,000 men, maintained at an annual cost of over £20,000,000. The *navy* consists of

¹ Landed property in France is much more subdivided than in England. The latest estimate gives the number of proprietors of estates of 600 acres and upwards at 50,000; those of 60 acres, 500,000; those under 6 acres at 5,000,000. It is estimated that 50 per cent. of the soil of France is arable, while the waste and uncultivated lands amount to 14 per cent.; the remaining 36 per cent. is covered with forests, vineyards, buildings, &c.

² Exports from France to the United Kingdom in 1875, £24,459,096; imports of British

home produce into France in the same year, £14,968,857.

³ In 1879 the value of the total imports (*commerce général*), was £174,000,000; exports, £192,800,000. The imports (*commerce spécial*), in 1879 were valued at £183,793,000, and the exports at £126,523,600.

⁴ By a law passed in 1878, 10,000 miles of new railways were ordered to be constructed before the end of the year 1888.

⁵ The cost of the war and foreign occupation of 1870-73, amounted to the enormous sum of £371,515,280.

about 500 vessels, carrying nearly 3000 guns, with about 160,000 men. At the end of 1880 there were nearly 50 ironclads in actual service or nearly completed.

EDUCATION.—Public education in France is in a much more advanced state than in most European countries, and is directly under the control of the government. In 1872 it was ascertained that 30 per cent. of the adult population of France were unable to read or write.¹

RELIGION.—The great majority of the French nation are followers of the Church of Rome, but full toleration is allowed to the members of the various Protestant churches.² The ministers of religion are supported by the State out of the public funds.

COLONIES.—The foreign possessions of France are :—Algeria, on the north coast of Africa ; St. Louis, at the mouth of the Senegal, and Goree, near Cape Verde, in Western Africa ; the island of Réunion, or Bourbon, in the Indian Ocean ; the islands of Martinique and Guadeloupe, with a few of less size, in the West Indies ; French Guiana, in South America ; the little islands of St. Pierre and Miquelon, in the Gulf of St. Lawrence ; New Caledonia, in the Pacific Ocean ; Pondicherry, and a few other stations, in India ; and part of Cochin-China, in the Indo-Chinese peninsula.

DIVISIONS and TOWNS.—France is divided into eighty-six *Departments*, the larger number of them named after the rivers which flow through them—as the departments of Seine, Marne, Meuse, Meurthe, Loire, Charente, &c. Some derive their names from the mountains which they adjoin, as the departments of Upper and Lower Alps, Upper and Lower Pyrenees, and Vosges. The island of Corsica forms one of the departments.

Previous to the great revolution, in the closing years of the last century, France was divided into thirty-four provinces. The names of many of these provinces are continually referred to in the pages of history. Among them are Picardy, Normandy, Brittany, Guienne, Gascony, Navarre, Languedoc, Provence, Dauphiny, Auvergne, Burgundy, Champagne, Lorraine, Alsace, Isle of France, Anjou, and Maine. Their relative positions can only be properly learned from the map.

PARIS, the capital of France, stands on either bank of the river Seine, and partly upon an island in the river. It has nearly 2,000,000 inhabitants—a greater population than belongs to any other city of Europe, excepting London. Paris is rich in fine public buildings and works of art, and ranks as the centre of fashion and refinement. Versailles, famous for its magnificent royal palace and gardens, is a few miles to the south-west of Paris.

Rouen (*population*, 104,900), an ancient city, the former capital of Normandy, on the Lower Seine, is a great seat of the woollen manufacture. **Havre** (*population*, 92,000), at the mouth of the river, is the chief

¹ There is a vast difference as regards education in the north-east and south-west of France. Thus, while in the Department of Doubs, only 6.9 per cent. of the people were unable to read or write, the percentage of illiterates in Haute-Vienne was 61.2.

² The census of May 1872 showed that 35,387,703 or 98.02 per cent. were Roman Catholics ; 590,757 or 1.6 per cent. were Protestants ; 49,439 were Jews ; 85,022, other sects.

emporium of foreign trade on the French side of the channel, and constitutes the port of Paris. Among the other places of note within the valley of the Seine and its tributaries are **Troyes**, the ancient capital of Champagne (on the Upper Seine), and **Rheims** (*population*, 81,000), formerly the ecclesiastical metropolis of France, and in the cathedral of which its monarchs were crowned. Rheims is in the plain between the Marne and the Aisne, two of the tributaries of the Seine.

To the northward of the Seine valley are the following :—

Amiens (*population*, 66,800), the former capital of Picardy, an ancient city on the river Somme, which enters the Channel. Below Amiens, on the same river, is **Abbeville**. At the mouth of the Somme is **St. Valery**, the port whence William of Normandy finally sailed for the shores of England in 1066. **Dieppe**, a flourishing seaport, is to the westward of the Somme. To the north of the Somme is the small town of **Cressy**, and, still farther north, the village of **Agincourt**—names which recall the triumphs of the English arms in 1346 and 1415. **Boulogne** and **Calais** are seaports on the French side of the narrow strait which divides the adjacent shores of France and England. **Dunkirk**, a place formerly of great name in history, is to the east of Calais. **Lille** (*population*, 162,000), **Roubaix**, **Valenciennes**, and **Arras** are inland towns, the three former near the Belgian frontier.

The following towns are situated within the basin of the river Loire :—

Orleans, an ancient city in the heart of the country, on the north bank of the Loire; **Tours**, also on the Loire, lower down, distinguished as a seat of the silk manufacture; **Nantes** (*population*, 122,000), a flourishing port near the mouth of the river; **Poitiers**, on a small tributary of the Vienne (which joins the Loire), noted in history for the victory gained by the Black Prince in 1356; **St. Etienne** (*population*, 126,000), to the east of the Upper Loire, the chief seat of the ironworks of France.

Within the tract of country lying between the Lower Seine and Loire—bordering partly on the Channel and partly on the Bay of Biscay—are the following places :—

Rennes, the ancient capital of Brittany, on the river Vilaine, which enters the Bay of Biscay; **Caen** (on the river Orne, which flows into the Channel), the favourite residence and the burialplace of William the Conqueror; **Cherbourg**, a strongly fortified seaport and naval arsenal, on the coast of the Channel, nearly opposite to the Isle of Wight; **St. Malo**, a port on the coast of Brittany; and **Brest** (*population*, 66,800), an important naval station, at the western extremity of Brittany, upon a fine harbour formed by an inlet of the Atlantic.

The following are within the valley of the Garonne :—

Toulouse (*population*, 131,000), the former capital of Languedoc, an inland city of the Upper Garonne; **Bordeaux** (*population*, 215,000), the great port of the wine trade, near the mouth of the river, at the head of the estuary called the Gironde. Bordeaux was long in possession of the English,¹ and was the birthplace of our King Richard II.

¹ From 1154 to 1450—a term of nearly three centuries.

In the tract of country lying between the mouths of the Garonne and the Loire are :—

La Rochelle, a seaport on the Bay of Biscay, famous in history for the prolonged siege in 1627-28, when it formed the stronghold of the French Protestants; **Rochefort**, a naval station, near the mouth of the river Charente; **Cognac**, also on the Charente, higher up the river, the centre of one of the principal brandy-producing districts.

To the south of the Garonne, towards the foot of the Pyrenees, is the valley of the river Adour.

Bayonne, at the mouth of the Adour, is a commercial port. **Pau**, an inland town on a tributary of the same river, was the birthplace of Henry IV. of France.

The following towns are within the basin of the Rhone :—

Dijon, the former capital of Burgundy, to the west of the Saone; **Besancon** (*population*, 54,400), an ancient and strongly-fortified city (the former capital of Franche-Comté, on the river Doubs, toward the Swiss border; **Lyons** (*population*, 342,800), at the junction of the Saone and the Rhone, the great seat of the silk manufacture, and the second city of France in point of population; **Avignon**, important in ecclesiastical history, situated on the left bank of the Rhone, within its lower course; and **Nîmes**, in the plain west of the river, a seat of the silk manufacture.

To the south-west of the Rhone valley, along the shore of the Gulf of Lions, are :—

Montpellier, **Cette**, and **Narbonne**. **Cette**, which is on the coast, is an important commercial town, the eastern outlet of the great Canal du Midi (or Canal of Languedoc), which connects the river Garonne with the Mediterranean.

On the coast, to the eastward of the Rhone, are :—

Marseilles (*population*, 518,800), the chief seat of French commerce in the Mediterranean, and a place of early historic fame, having been founded in the 6th century before the Christian era; **Toulon**, farther to the east, a great naval station and arsenal; **Nice** (*population*, 53,000) on the Mediterranean coast, near the Italian border.

In the north-east of France, within the valleys of the Moselle and the Meuse (Rhine basin) are the following :—

Nancy (*population*, 66,300), the former capital of Lorraine, on the river Meurthe, an affluent of the Moselle; **Verdun**, a fortified town on the Meuse.

The chief part of **Lorraine**¹ and the whole of **Alsace**² were transferred from France to Germany by the conditions of peace exacted after the war of 1870-71.

The island of **CORSICA** contains the small towns of **Bastia** and **Ajaccio**, the latter celebrated as the birthplace of Napoleon Bonaparte.

The **CHANNEL ISLANDS**, which lie off the north-western coast of France, belong to Great Britain, and have been attached to the English crown ever since the date of the Norman conquest. They consist of Jersey, Guernsey, Alderney, Sark, and a few smaller islets. The chief town of Jersey, which is the largest of the number, is **St. Helier**.

¹ Lorraine, Ger. *Lothringen*; from Lothaire II., its king in 899.

² Alsace, Ger. *Elsass*, i.e. the (river) Ill-Saxons.

EXAMINATION QUESTIONS.

1. Name, and point out on the map, the boundaries of France.
2. What proportion does the size of France bear to that of England and Wales?
3. What lines of sea-coast does France possess?
4. What mountains form part of the frontier-line of France?
5. Is France generally a level or a hilly country?
6. In what part of France is the district called the Landes? What are its features?
7. Name the four great rivers of France, with the seas into which they flow.
8. What kind of climate has France compared with that of England?
9. What productions of the vegetable kingdom characterise the south of France?
10. In what parts of France is the vine most extensively grown?
11. Give a few particulars as to the number, race, and language of the French people.
12. What branch of manufacture is most characteristic of French industry?
13. In what parts of France are the silk, woollen, linen, and cotton manufactures chiefly pursued? What other articles are manufactured?
14. What articles are chiefly imported and exported from France?
15. Name the three great ports for the foreign commerce of France, and point them out on the map.
16. Under what form of government is France, and what is the prevailing religion?
17. Enumerate the foreign possessions of France.
18. Into how many departments is France divided, and from what are their names in many cases derived?
19. Name some of the most important among the former provinces of France.
20. On what rivers are the following places situated:—Paris, Rouen, Troyes, Amiens, Orleans, and Nantes?
21. Name the principal seaports on the French shores of the Channel.
22. In what parts of France are Cressy, Agincourt, and Poitiers?
23. Where is Lyons, and of what branch of industry is it the seat?
24. Where are Rheims, La Rochelle, Rochefort, Montpellier, Dijon, and St. Etienne?
25. On what river is Bordeaux, and for what is it distinguished?
26. On what rivers are Toulouse, Bayonne, Avignon, Besançon, Nancy, and Verdun?
27. Where are Cherbourg, Brest, and Toulon, the three great naval arsenals of France?
28. Where is Marseilles, and for what is it noteworthy?
29. What towns does the island of Corsica contain?

BELGIUM.

BELGIUM¹ is a small country in the west of Europe, and from 1814 to 1830 was politically united to Holland.

BOUNDARIES.—It is bounded on the *north* by Holland; on the *east* by Prussia; on the *south* by France; and on the *west* by the North Sea or German Ocean.

EXTENT.—Its area is 11,373 square miles, which is nearly one-fifth the size of England and Wales.

Its *greatest extent*, from east to west, is about 160 miles, and from north to south about 115 miles. Its *sea-coast* is only 40 miles in length, and is nowhere broken by capes or inlets. Like that of Holland, it is uniformly flat, but is skirted with natural sand-hills or *dunes*, which protect the land from being inundated by the sea.

SURFACE.—The greater part of Belgium is level; but in its eastern division the ground becomes hilly, and includes the wooded region of the Ardennes.

Belgium is, *physically*, a continuation of Holland. The Ardennes have an average elevation of about 1000 feet, but a few points near Spa exceed 2000 feet.

¹ Belgium, the country of the *Belge*, the *old inhabitants* of the country, who were originally settled along the banks of the Volga or *Baiga*, hence their name.

RIVERS.—The *Meuse* (or *Maas*) and the *Scheldt* are the two chief rivers of Belgium, but both of them pass thence into Holland, and have their lower courses in that country. These rivers have numerous tributaries, as the *Rupel* and *Lys*, which join the Scheldt, and the *Ourthe* and *Sambre*, which unite their waters to the Meuse.

The "winding Meuse" has a total course of 550 miles, only 115 of which are in Belgium. The total length of the Scheldt is about 250 miles, about one-half of which are in France. Both are deep and navigable for large vessels.

CLIMATE.—The climate resembles in most respects that of England. It is moist in the western, but drier in the eastern, provinces.

The mean annual temperature is about 50° F., and the annual rainfall 28 inches.

PRODUCTIONS.—Belgium is rich in mineral produce, containing extensive coalfields¹ and abundant deposits of iron ore, which are very largely worked. Belgium supplies more coal than any other country in Europe, excepting Britain.

For vegetable productions, see *agriculture*. *Forests*, in which the bear, wolf, and wild boar are still found, cover about one-fifth of the country. The strong *Flemish dray-horses* are much esteemed.

INHABITANTS.—Comparatively to its size, Belgium is the most populous country in Europe—probably the most populous in the world.² It has above five millions of inhabitants—equal to an average of 460 persons to the square mile. The people of Belgium are properly Flemings, and the native dialect of the lower orders is the *Flemish* tongue; but the *French* language is uniformly spoken by the upper classes of society.

INDUSTRY.—The Belgian population are highly distinguished for their industry.

1. **Agriculture.**—Although the soil consists mainly of clay and sand, nearly every part of the country is well cultivated. Corn, flax, hemp, madder, tobacco, and clover are grown.

2. **Manufactures.**—The manufacture of *woollen*, *linen*, *lace*, *cotton*, and *silk* goods is largely carried on. The fine lace of Belgium (produced at Brussels, Mechlin, Antwerp, and elsewhere) is unrivalled in quality. *Ironworks* are numerous in the eastern part of the kingdom, towards the banks of the Meuse.

3. **Commerce.**³—Colonial produce and wool are the chief *imports*; and coal, flax, iron, manufactured goods, and agricultural produce, the principal *exports*. The principal ports are Antwerp, Ostend, and Bruges.

INTERNAL COMMUNICATION.—Excellent macadamised roads, numerous canals, and an extensive and complete system of railways and telegraphs, radiating from Mechlin (Malines).

¹ The two principal coalfields are those of *Hainault* and *Liege*. The coalfields of Belgium produce on an average 14,000,000 of tons of coal per annum.

² According to the last census (1876), the population of Belgium was 5,336,185, or 460 per square mile. In 1830 the population

was scarcely 4,000,000; and in 1878 it was estimated at 5,476,668.

³ The value of the general trade in 1878 was—*Exports*, £20,166,092; *Imports*, £24,262,792. The value of the direct trade with Great Britain in 1879 was—*Exports*, £10,725,739; *Imports*, £5,104,478.

GOVERNMENT and FINANCE.—Belgium is a constitutional monarchy, under a king. Prior to the revolution of 1830, it was attached to the neighbouring kingdom of the Netherlands. But the Belgian population then asserted their independence, and Belgium was formed into a distinct kingdom. Estimated *Revenue* in 1880, £11,148,000; *Expenditure*, £11,688,900; *Public Debt*, £61,653,000.

Army.—The standing *army* numbers about 40,000 men, besides which there are about 20,000 National Guards. Many of the towns of Belgium are very strongly fortified.

EDUCATION.—Rather backward. The primary schools are supported partly by the State and partly by the provinces and communes. There are four universities: Brussels, Ghent, Liege, and Louvain.

RELIGION.—Nearly all the Belgians belong to the Roman Catholic Church. There are only about 13,000 Protestants.

DIVISIONS and TOWNS.—Belgium is divided into nine provinces, the names of which, with their chief towns, are as follow:—

Provinces.	Towns.	Provinces.	Towns.
West Flanders, .	Bruges, Ostend.	Limburg, . .	St. Trond, Hasselt.
East Flanders, .	Ghent, St. Nicholas.	Liege, . . .	Liege, Verviers.
Hainault, . .	Tournay, Mons.	Namur, . . .	Namur, Dinant.
South Brabant, .	Brussels, Louvain.	Luxembourg, .	Arlon, Marche.
Antwerp, . .	Antwerp, Mechlin.		

BRUSSELS (*population*, 376,000) is the capital of Belgium. It stands on the river Senne, in the centre of the kingdom, and is a well-built and attractive city. Among many interesting places in its neighbourhood, the most noteworthy is the battlefield of *Waterloo*, ten miles to the southward.

Belgium formed part of the region known in former ages as the Low Countries, and was the frequent theatre of war. The destinies of rival nations have often been decided on its plains. The sites of numerous *battlefields* are hence found within its limits—among them, Steinkirk (1692), Landen (1693), Ramillies (1706), Oudenarde (1708), Fontenoy (1745), Jemappes (1792), Quatre-bras, Ligny, and Waterloo (1815).

Antwerp (*population*, 150,000), on the river Scheldt, is the principal port of Belgium, and the chief emporium of its foreign trade. **Mechlin**, situated nearly midway between Brussels and Antwerp, is noted for its lace manufactures, and is the centre of the Belgian railway system. **Ghent** (*population*, 127,000), an ancient city on the Scheldt, is the principal seat of the cotton manufacture. **Bruges** (*population*, 45,000), farther to the westward, has both manufactures and trade. But all of these cities were more populous at a former period—during the 13th and 14th centuries—than they are at the present day. **Ostend**, on the coast of the North Sea, is a port of some note.

Mons (*population*, 25,000), the chief town of Hainault, and **Namur** (*population*, 25,000), at the junction of the rivers Sambre and Meuse, are within the coal district of Belgium. **Liege** (*population*, 115,000), in the eastern part of the kingdom, is a flourishing manufacturing city, situated on the Meuse, in the midst of coalfields and ironworks.

HOLLAND, OR THE NETHERLANDS.

BOUNDARIES.—HOLLAND,¹ a small country of western Europe, borders on the North Sea, which forms its boundary on the *west* and *north*. On the *east* it is bounded by Germany, and on the *south* by Belgium.

EXTENT.—The *area* of Holland is 20,497 square miles, which is somewhat less than half the size of England and Wales. Its *greatest length* is 196 miles; its *greatest breadth*, 109 miles.

COASTS.—Holland has an extensive and varied line of sea-coast. It is low everywhere, being in some places actually below the sea-level, but is generally skirted by natural sand-hills² or enormous *dykes* constructed and maintained by the state, which alone prevent the sea from inundating the land. The principal *inlets* are the Zuyder Zee, the Dollart Zee, and the estuaries of the Scheldt, the Maas, and the Rhine.

The Zuyder Zee was formed by an irruption of the sea in 1282. Before that year the centre of its bed was occupied by a small lake³ which was drained into the North Sea by a river 50 miles long. The Dollart Zee was formed by two inundations of the sea, in 1277 and 1287. Among later irruptions may be noticed that of 1421, when the waters of the Rhine burst through a dyke and overwhelmed a large and populous district. Reclus says that "on retiring, the tide left, instead of fields and houses, only an archipelago of marshy islands." This district is now known as the *Bies Bosch*.⁴ In 1825 another fearful irruption in *Waterland* destroyed forty villages with their inhabitants.

ISLANDS.—Two principal groups: one in the north-west (Texel, Vlieland, Terschelling, &c.), and another in the south-west (Walcheren, North and South Beveland, &c.).

A glance at the map of Holland will show that the north-western group of islands is evidently the remains of the old coast-line, the surrounding land having been submerged by successive inundations, chiefly that of 1282, when the Zuyder Zee was formed. Walcheren and the other south-western islands were most probably insulated by the overflowing of the Rhine, Maas, and Scheldt. These islands are in many places below sea-level, and are only preserved from inundation by artificial embankments.

SURFACE.—Holland is a flat country, and large parts of it are naturally marshy. Along the coasts the land is in some places even lower than the waters of the adjoining sea, and it is only by means of mounds (or *dykes*, as they are called) that it is preserved from inundation. A large portion of the country, indeed, has been actually gained from the sea by the persevering industry of the Dutch people. Many of the shallow lakes or *meers* have been drained of their waters and converted into rich pasture grounds.

The expense of constructing and maintaining the *dykes* is enormous—the whole of the wood and granite required being imported from other countries.

¹ Holland, from *ollant*, marshy ground originally the name of the principal province. *Netherland*, nether or lower countries, in allusion to its depressed surface. Also called the *Low Countries*. From 1814 to 1830 Belgium was politically united to Holland.

² Called *dunes*.

³ Known to the Romans as *Lake Flevo*.

⁴ *Bies*, rush; *bosch*, a forest, i.e., a forest of rushes or reeds. In this catastrophe 72 villages were destroyed and 100,000 people perished.

These dykes are vast embankments of earth, 30 feet high and from 70 to 300 feet broad, strengthened by massive timber work and masonry, and occasionally the submerged piles are protected by iron plates.¹

RIVERS.—Holland abounds in inland waters. The *Rhine*, the *Meuse*, and the *Scheldt* are the principal rivers; and the two former of these are connected, towards their mouths, by numerous channels, both natural and artificial. There are many smaller streams—the *Yssel*, *Vecht*, *Amstel*, and others; and the towns are traversed by numerous canals, so that the whole country exhibits a network of water-courses. It is, however, only the lower portions of the three great rivers named above that are within the Netherlands—their middle and upper courses belong to other countries.

The Rhine, Meuse or Maas, and Scheldt enter the North Sea; the Yssel, Vecht, and Amstel fall into the Zuyder Zee, i.e., South Sea. The *delta* of the Rhine has an area of 4000 square miles, or one-third that of Holland.

LAKES.—Numerous lakes in Friesland and North and South Holland. Portions of the larger and many of the smaller *meers* or shallow lakes have been reclaimed, and now form rich and fertile “polders.”

CLIMATE.—Holland is rather colder than England, and the winters are of much greater severity. The air is generally moist, especially in the neighbourhood of the coast, but Luxembourg is drier.

The Zuyder Zee is occasionally, and the North Holland and other canals are always, frozen over in winter.

PRODUCTIONS.—There are no metals and but few *minerals*. Both building-stone and timber are scarce, the former is imported from Norway and the latter from Norway and Germany. The *animals* are similar to those of England. Water-fowl, swans, and storks² are very numerous.

INHABITANTS.—In 1877 the population of Holland was officially estimated at 3,866,456, equal to an average of 170 persons per square mile.

The *Dutch* belong to the Teutonic or German race; but there are several thousand *Germans*, *Flemings*, *Frisians*, and *Jews*. The common language is *Dutch*. The *Frisian* language is spoken in Friesland.

INDUSTRY.—The Dutch (as the people of Holland are called) are distinguished for their industry, frugality, and cleanliness, and also by their devotion to maritime pursuits. They are among the best farmers and the most successful traders in the world.

1. **Agriculture.**—In Holland great part of the land is devoted to grazing. Vast numbers of cattle are reared, and the produce of the farm and dairy—cheese, butter, &c.—is of the finest description.

2. **Fisheries.**—Extensive fisheries, in the North Sea and elsewhere, were formerly carried on by the Dutch; but these, though still considerable, are less important now than they once were.

3. **Manufactures.**—The principal are shipbuilding, woollen cloths, silks and velvets, sugar-refining, and gin-distilling.

¹ On the coat of arms of one of the provinces is the figure of a lion swimming, underneath which is the motto, “I strive, and keep my head above water.”

² The stork is particularly venerated by the Dutch, and carefully protected. Frogs and other reptiles, which form its principal food, abound in the *meers* and marshes.

4. Commerce.—The possession of the mouths of several great rivers enables the people of Holland to command a large share in the transit of commodities to and from the countries of middle Europe. The Dutch have for centuries past been the masters of a great carrying trade. In the 16th and 17th centuries they were, in this respect, the carriers of the world. Though now less in amount than at a former time, the shipping and foreign commerce of the Dutch nation are still very large.

In 1878 the *exports*, consisting of butter, cheese, cattle, sheep, colonial produce, &c., were valued at £44,423,000; and the *imports*, consisting of manufactured goods, colonial produce, timber, &c., amounted to £59,453,000. The principal articles of exports to the United Kingdom are butter, live animals, and cheese.¹ The mercantile navy of Holland consists of nearly 2000 vessels of upwards of 500,000 tons.

PORTS.—The principal ports are:—Amsterdam, Rotterdam, Middelburg, and Flushing.

INTERNAL COMMUNICATION.—The internal trade of Holland is carried on almost entirely by the *canals* and rivers, which traverse the country in all directions. Good *roads* along the top of the dykes. There are about 1000 miles of *railway*, and upwards of 2000 miles of *telegraph lines*.

Of the canals of Holland, the most noted are the *North Holland Canal*, 50 miles long, 21 feet deep, from the Helder to the Y; and the deeper *North Sea Canal*, 14½ miles long, from Amsterdam to the North Sea.

GOVERNMENT.—The kingdom of the Netherlands is an *hereditary monarchy*, under constitutional forms.

The *executive* power is vested in the king and a council of ministers. The *legislative* power is vested in the States-General, as the two Houses of Parliament are called. The *Revenue* for the year 1881 was estimated at £8,750,000, and the *Expenditure* at £10,527,750. In the same year the *National Debt* amounted to £79,500,000.

Army and Navy.—The home forces consist of about 60,000 men, and the colonial army of nearly 40,000, besides which there are over 100,000 men enrolled in the militia. The *navy* is considerable, and consists of 90 steam-vessels, of which 20 are ironclads.

EDUCATION.—Education is in an advanced condition, one in eight of the entire population being in attendance at the elementary schools established and partly supported by the state. Higher education is given in the middle and Latin schools and the universities of Leyden, Groningen, Amsterdam, and Utrecht.²

RELIGION.—The *Protestant* religion is followed by the royal family and about two-thirds of the inhabitants, the rest are chiefly *Roman Catholics* and *Jews*.

COLONIES.—The chief foreign possessions of Holland are in the East Indies, where the Dutch are masters of *Java*, with parts of *Sumatra*, *Borneo*, and *Celebes*, besides many of the smaller islands of that region. In the New World, part of *Guiana*, on the South American mainland, and some of the smaller islands of the West Indies belong to the Dutch. Of the latter, the principal is *Curaçao*, near the coast of Venezuela.

¹ Value (1879): butter, £3,331,000; live animals, £1,216,000; cheese, £743,000.

² At Delft is a most valuable school for instruction in hydrographic engineering,

such as the making and repairing of dykes, canals, &c., a subject of vital importance in such a country as Holland.

PROVINCES and TOWNS.—The kingdom of the Netherlands includes ten provinces, besides portions of Limburg and Luxembourg. The last is properly a part of Germany, but is attached to the Dutch crown. Their names, with the chief towns in each, are:—

Provinces.	Towns.	Provinces.	Towns.
North Holland.	Amsterdam, Haarlem, Horn, Alkmaar.	Guelderland, .	Nimeguen, Zutphen.
South Holland.	Rotterdam, The Hague, Leyden.	Overysael, .	Zwoil.
Zeeland, .	Middelburg, Flushing.	Drenthe, .	Meppel.
North Brabant.	Hertogensbosch, Breda.	Friesland, .	Leeuwarden.
Utrecht, .	Utrecht.	Groningen, .	Groningen.
		Limberg, .	Maestricht.
		Luxembourg, .	Luxembourg.

AMSTERDAM¹ (population, 300,000) is the largest city of the Netherlands and the great seat of its foreign trade. It stands at the entrance of the river Amstel into an inlet of the Zuyder Zee, which forms a safe and extensive harbour.

Haarlem (population, 35,000) is to the west, **Leyden** (population, 41,000) has a university of great repute, and is celebrated in history for the siege it underwent in the latter part of the 16th century (1573-74). **The Hague** (population, 104,000) is a large and well-built city, the seat of government, and political capital of the kingdom. **Rotterdam** (population, 140,000), on the river Meuse (the channel of which forms the principal entrance to the Rhine), is the second city of the Netherlands in size and population. **Utrecht**, **Nimeguen**, **Breda**, **Hertogensbosch**, and many other of the cities of Holland, are important seats of trade.

The Dutch towns in general have many features in common. They are clean and well built, with canals running through the principal streets, bordered by rows of trees on either hand. Canals serve in Holland many of the purposes of roads in other countries.

QUESTIONS ON BELGIUM AND HOLLAND.

- How is Belgium bounded?
- What kind of country is Belgium as to its surface?
- Name the chief rivers of Belgium. Into what sea do they flow?
- In what kind of mineral produce is Belgium rich?
- What are the people of Belgium properly called? What language is generally spoken?
- What articles of industrial produce does Belgium supply?
- Into how many provinces is Belgium divided? Name them.
- Point on the map to the capital of Belgium. On what river does it stand?
- Name the chief seaport of Belgium. On what river does it stand?
- For what are Mechlin, Ghent, Bruges, and Liege respectively noted?
- What battlefields are included within the limits of Belgium?
- How is Holland, or the kingdom of the Netherlands, bounded?
- What arms of the sea occur on the coast of Holland? Point them out on the map.
- What kind of country is Holland as to its surface?
- Name the three principal rivers of Holland. Into what sea do they flow?
- What kind of climate has Holland?
- By what qualities are the Dutch people distinguished?
- Of what do the productions of Dutch industry chiefly consist, and what kind of trade do the Dutch carry on?
- Under what kind of government are Belgium and Holland respectively? What is the prevailing religion in each?
- Name the provinces into which Holland is divided.
- How is Amsterdam situated, and for what is it distinguished?
- Name some of the other principal towns of Holland. Which is the seat of government?
- By what characteristics (as to appearance) are the towns of Holland generally distinguished?

¹ The termination *dam* means an "embankment;" Amsterdam—the dam of the Amstel.

SWITZERLAND.

BOUNDARIES.—SWITZERLAND¹ is an entirely inland country, and is bounded on the *north* by Germany, on the *east* by Austria, on the *south* by Italy, and on the *west* by France.

The course of the river Rhine marks the chief part of the frontier on the side of Germany; the highest portion of the Alpine system divides Switzerland from Italy, and the chain of Mount Jura forms part of the boundary on the side of France.

EXTENT.—Its greatest *length* from east to west is 208 miles, and its extreme *breadth* from north to south 156 miles. Its *area* is nearly 16,000 square miles—little more than a third part of the size of England and Wales.

MOUNTAINS.—Switzerland is a mountainous country. Two-thirds of its surface consist of high mountains and intervening valleys, the other third is an elevated plain. The mountain land embraces the southern and eastern divisions of the country, the northern and western portions belong to the plain or valley, which stretches across the country in the direction of north-east and south-west, between the lakes of Constance and Geneva. Mont Blanc, the highest summit of the Alps, is on the border-line of Piedmont and Savoy, and beyond the limits of Switzerland. But many of the principal Alpine summits are either within Switzerland or on its borders, and the most extensive of the glaciers are within its limits.

The Alps of Switzerland consist of several more or less continuous chains radiating from Mont St. Gothard, and are distinguished as the *Pennine* and *Lepontine Alps* on the frontier between Switzerland and Italy.² The Rhone flows between these mountains on the south and the *Bernese Alps* on the north. The range east of Mont Bernardin is known as the *Rhetian Alps*. Besides these principal ranges there are other lofty groups, such as the *Vierwaldstatter Alps*, between the rivers Aar and Reuss, and the *Swiss Alps*, chiefly in the cantons of Glarus and Schwyz.

1. The *Pennine Alps* contain Mont Rosa, 15,152 feet; Mont Cervin or Matterhorn, 14,837 feet; and the *passes* of Great St. Bernard, 8,131 feet, leading from Martigny to Aosta; and Matter-joch, 10,899 feet, east of the Matterhorn.

2. The *Lepontine Alps* contain Mont Leone, 11,696 feet; Mont St. Gothard,³ and the *passes* of the Simplon, 6628 feet, traversed by Napoleon's splendid military road, constructed 1802-6; and the St. Gothard, 6936 feet, between Altorf and Bellinzona.

3. The *Rhetian Alps* contain Piz Roseg, 12,936 feet; Ortler Spitz, 12,852; and the *passes* of the Splügen, 6946 feet, between Chiavenna and Chur; and Stelvio, 9177 feet, between the valleys of the Adige and the Adda.

4. The *Bernese Alps* contain the Aletschhorn, 13,782 feet; Finster-aarhorn, 14,100 feet; the Jungfrau, 13,718 feet; and the *passes* of the Gemmi, 7553 feet, and Grimsel 7103 feet.

¹ *Fr. La Suisse*; *Ger. Schweiz*. From the forest canton of *Schweys*, the chief town of which was probably founded, at a very early period, by a *Swedish* colony.

² The portions of the *Pennine* and *Lepontine Alps* which form the southern and eastern boundaries of the canton of *Valais* are frequently called the *Valais Alps*.

³ The completion of the great *St. Gothard*

Tunnel and connecting lines places the railway-system of Switzerland in unbroken communication with those of Italy on the south and Germany on the north. This magnificent work was commenced in 1872, and completed on February 29, 1880. The tunnel is 9½ miles long (about 1½ miles longer than the *Mont Cenis Tunnel*), and extends from *Gessenhen* on the north to *Airolo* on the south.

RIVERS.—The *Rhine* and the *Rhone* are the two most important of the Swiss rivers, and, with their numerous tributary streams, water by far the greater part of the country. The *Aar* is a considerable affluent of the Rhine, and is joined by the Reuss, the Limmat, and other streams. The *Inn*, which waters the easternmost part of Switzerland, is a tributary of the Danube. The *Tessin* (or Ticino), which waters the only one of the Swiss cantons that lies south of the Alps, is an affluent of the Po.

1. The *Rhine* is formed by the junction of the *Vorder Rhine*, which rises in Mont St. Gothard, and the *Hinter Rhine*, which rises in the Adula group, and runs north to Lake Constance, whence it flows west to Basle. The celebrated "Falls of the Rhine," below Schaffhausen, are much admired. Halfway between these falls and Basle it is joined by the Aar, the principal river of Switzerland.

2. The *Rhone* rises in the Rhone Glacier, on Mont St. Gothard, and runs west through a valley flanked by the Bernese Alps on the north and the Pennine Alps on the south. Near Martigny it turns north-west and enters Lake Geneva, whence it flows south to the Gulf of Lyons. The rapidity of its current is due to the elevation of its source, which lies about 4000 feet above the surface of Lake Geneva.

WATERFALLS.—Numerous waterfalls occur in Switzerland, and are among the most attractive features of its scenery. The highest of them is the *Staubbach*, formed by a mountain-torrent (an affluent of the Lake of Brienz, in the southern part of the canton of Berne) which falls 800 feet. The *Falls of the Rhine*, below Schaffhausen, are much admired.

LAKES.—Switzerland abounds in lakes. The principal are *Geneva* (230 square miles), drained by the Rhone, *Constance* (183 square miles), *Neufchatel* (93 square miles), *Lucerne* (40 square miles), *Zurich*, *Thun*, *Brienz*, and *Wallenstadt*—all lying to the north of the Alps and drained by the Rhine and its tributaries; *Maggiore* and *Lugano*, to the south of the mountains, drained by the Ticino, a tributary of the Po.

CLIMATE.—The elevation of the country renders the climate of Switzerland cold on the whole, though in particular localities (and especially in the narrow mountain-valleys) considerable heat is experienced.

The shores of the Lake of Geneva are specially distinguished for their warm and equable temperature. In all the higher regions, however, the winters are long and severe. In some of the deep and narrow valleys many of the inhabitants are afflicted with "cretinism" and "goitre."

PRODUCTIONS.—1. All the ordinary *domestic animals* of Europe are found. The *wild animals* include the bear, wolf, lynx, chamois; and of the *birds* the most noted are the eagle, and the lammergeier or bearded vulture.

2. The produce of the soil is varied. The *vine* flourishes in the lower valleys and plains to a height of about 1700 feet above the sea-level. *Wheat* and other grains are also grown. But Switzerland is rather pastoral than an agricultural country. *Timber* is abundant upon the mountain-sides.

3. Coal, iron, copper, lead, and rock-salt are found, but not much worked. Numerous mineral springs, especially in the canton of Berne.

INHABITANTS.—Switzerland, at the last census (November 30, 1880), had 2,831,787 inhabitants, which is a large population for so mountainous a country, being on an average more than 180 persons per square mile.

The Swiss (as the people are called) are not so much a distinct nation as an offshoot from the population of the three neighbouring countries—Germany, France, and Italy. There is no Swiss language. In the western cantons the people speak *French*; in the east the *German* language is the common tongue. In one of the Swiss cantons—that of Tessin, to the south of the Alps—the people are of *Italian* origin, and speak the Italian language.¹

INDUSTRY.—1. The Swiss are a frugal and industrious race. Within the mountain-region the people are chiefly shepherds and herdsmen. Their cows, sheep, and goats constitute their wealth, and furnish their principal occupation. In summer the cattle are pastured on the mountain-sides, in winter they descend to the valleys.

2. In the more level parts of the country (that is, in the north and west) *manufactures* are extensively pursued. Silk and cotton goods are made; so also are watches, musical boxes, and various articles of jewellery. A vast number of watches,² the produce of Swiss industry, are annually exported to other countries. Geneva is the principal seat of this manufacture.

3. In spite of great natural disadvantages, the *commerce* of Switzerland is extensive. The *imports* are chiefly articles of food,³ colonial produce, and raw material for manufacture; and the *exports*, manufactured goods and farm produce.

INTERNAL COMMUNICATION.—Several magnificent military *roads* across the Alps, and excellent highroads; nearly 1500 miles of *railway*; ⁴ a complete system of *telegraphs*, and an admirably conducted *postal service*.

GOVERNMENT.—Switzerland forms a federal republic. Each canton has an internal administration of its own, while the public affairs of the whole are regulated by a Parliament (consisting of deputies from the different cantons), which has its sittings at Berne.

The Swiss Parliament consists of two chambers: the "State Council," composed of 44 members, two from each canton, and the "National Council," composed of representatives elected directly by the people. Estimated *Revenue* for 1880, £1,828,000; *Expenditure*, £1,830,000; *Public Debt*, £1,340,000.

Army.—The "Federal army" consists of about 100,000 men; the "militia" of nearly the same number. All men from the age of 20 to 44 are liable to military service.

EDUCATION.—Education is compulsory and highly advanced, especially in the Protestant cantons, where one in five of the population attend school. There are training colleges for teachers in all the cantons. Higher education is given at the universities of Basle, Berne, and Zurich.

¹ According to the census of 1871, 324,561 *feminites* speak German, 134,183 French, and 30,293 Italian.

² About half a million watches are made annually, occupying above 35,000 workmen.

³ In 1877 over 5,500,000 cwts. of *wheat* and *flour* were imported.

⁴ About one mile of railway to every ten square miles of area. The Swiss railway-system is now connected with that of Italy by the great St. Gothard Tunnel.

RELIGION.—In religion Switzerland is divided between the *Protestant* and the *Romish* churches. Rather more than half the population belong to the former, which embraces chiefly the manufacturing cantons of the north and west.

DIVISIONS and TOWNS.—Switzerland comprehends twenty-two cantons, the names of which, with the principal towns in each, are as follow :—

Cantons.	Towns.	Cantons.	Towns.
Berne, . .	Berne.	Zug, . . .	Zug.
Soleure, . .	Soleure.	Lucerne, . .	Lucerne.
Basle, . .	Basle.	Unterwalden, . .	Stans, Sarnen.
Aargau, . .	Aargau.	Uri, . . .	Altorf.
Zurich, . .	Zurich.	Fribourg, . .	Fribourg.
Schaffhausen, . .	Schaffhausen.	Neuchâtel, . .	Neuchâtel.
Thurgau, . .	Frauenfeld.	Vaud, . . .	Lausanne.
Appenzell, . .	Appenzell.	Geneva, . . .	Geneva.
St. Gall, . .	St. Gall.	Valais, . . .	Sion.
Glarus, . .	Glarus.	Grisons, . . .	Chur or Coire.
Schwyz, . .	Schwyz.	Tessin, . . .	Bellinzona, Lugano.

The city of **BERNE** (*population*, 36,000), which is on the banks of the Aar, ranks as the capital of the Swiss Confederation. Next in importance to it are Geneva, Zurich, and Basle, the first-named of which has a greater population than any other town in Switzerland.

Geneva (*population*, 46,700) lies at the foot of the beautiful lake called by its name, where the Rhone issues from its waters. Besides its manufacture of gold watches, Geneva is highly distinguished as a seat of learning, and was the early stronghold of the Reformed Church. **Zurich** (*population*, 21,000), also distinguished for its literary culture, is at the northern extremity of the Lake of Zurich, at the outlet of the river Limmat, which afterwards joins the Aar. **Basle**, or **Basel** (*population*, 45,000), is in the north-west corner of Switzerland, at the great bend of the Rhine, and is the seat of considerable trade.

The Lake of Lucerne, in the heart of the mountain country, is enclosed by the cantons of *Schwyz*, *Uri*, *Unterwalden*, and *Lucerne*—known as the “forest cantons,” the cradle of Swiss independence and the centre of Roman Catholic Switzerland. The well-known summit of the *Rigi* rises above the north-eastern shores of the lake.

QUESTIONS ON SWITZERLAND.

1. Name the boundaries of Switzerland. What natural features do they embrace?
2. What kind of surface does Switzerland exhibit?
3. Name some of the principal Alpine summits that are within, or on the borders of, Switzerland. Which is the highest of the number?
4. Name some of the mountain passes that belong to the Swiss Alps.
5. Mention the principal rivers of Switzerland, and briefly describe the courses of the Rhine and Rhone.
6. Name the principal lakes.
7. What is the highest of the Swiss waterfalls called? In what canton is it?
8. What productions of the soil belong to Switzerland?
9. What languages are commonly spoken by the Swiss people?
10. What industrial pursuits distinguish the Swiss nation?
11. Under what form of government is Switzerland?
12. How many cantons does Switzerland embrace? Which among them contains the seat of the general government?
13. In what parts of the country are the cities of Geneva, Zurich, and Basle? For what are the two former distinguished?

THE GERMAN EMPIRE.

The name "GERMANY" generally denotes that portion of central Europe inhabited chiefly by German-speaking peoples. But the "GERMAN EMPIRE," constituted in December 1870, does not include the Germanic provinces of Austria or the Germanic cantons of Switzerland.

BOUNDARIES.—On the *north* by the North Sea, Denmark, and the Baltic; on the *south* by Switzerland and Austria; on the *east* by Austria and Russia; and on the *west* by France, Belgium, and Holland.

EXTENT.—The total *area* of the German Empire as now constituted is 212,001 square miles, or about three and a half times that of England and Wales.

The *greatest length*, from south-west to north-east, is about 850 miles.

The *greatest breadth*, from north to south, is about 580 miles.

COASTS.—The total length of the coast-line is about 1200 miles, of which 350 miles belong to the North Sea, and 850 to the Baltic. There are numerous inlets, but few good harbours. The principal *inlets* are the *Jahde*, estuaries of the *Weser* and *Elbe*; Gulf of *Lübeck*, *Stettiner Haff*, and Gulf of *Danzic*, with *Frische Haff*¹ and *Kurische Haff*.

Jahde or *Wilhelmshafen* is now a strongly-fortified naval port, the "Sebastopol of the North Sea." The *Kurische Haff* is bounded on its seaward side by a narrow "tongue" of land, the *Kurische Nehrung*. None of the Prussian Haffs exceed two to three fathoms in depth.

ISLANDS.—The Frisian Islands, *Norderney*, *Nordstrand*, &c., in the North Sea; *Alsen*, *Fehmern*, and *Rügen* in the Baltic.

The North Frisian Islands, and *Alsen* and *Fehmern*, were taken from Denmark in 1864. *Rügen* was ceded to Prussia in 1814. *Heligoland*,² about 50 miles north-west of the estuary of the *Elbe*, formerly belonged to Denmark, but was taken by the English in 1807, and now belongs to Great Britain.

NATURAL FEATURES.—Germany is for the most part level, but includes many detached groups of high ground within its southerly and westerly divisions. The chief *mountain-ranges* are the *Eifel* and the *Vosges*, on the left bank; and the *Schwarz Wald*,³ *Tannus*, and *Westerwald* on the right bank of the *Rhine*; *Böhmer Wald*, *Erz Gebirge*,⁴ and *Riesen Gebirge*⁵ on the Austrian frontiers; and the *Harz Mountains*, *Teutoburger Wald*, *Vogelsberg*, and *Thüringer Wald*, between the basins of the *Elbe* and the *Rhine*.

The highest point in Germany north of the *Danube* is *Schneekoppe*, in the *Riesen Gebirge*, 5274 feet. The peak of *Zug-spitz*, in south Bavaria, attains an elevation of 9716 feet. The absolute height of the ranges of middle Germany seldom exceeds 3000 feet. The mean elevation of the high plains of Bavaria is 1600 feet, and the whole empire about 700 feet.

¹ *Frische Haff*, freshwater sea.

² *Heligoland*, Holy land: so called because it formerly contained the temple of a Saxon goddess.

³ *Schwarz Wald*, Black Forest, separates the basins of the *Rhine* and *Danube*.

⁴ *Erz Gebirge*, metal mountains.

⁵ *Riesen Gebirge*, giant mountains.

RIVERS.—The principal rivers are the *Rhine*, *Ems*, *Weser*, and *Elbe*, flowing into the North Sea; the *Oder*, *Vistula*, and *Niemen*, flowing into the Baltic; and the *Danube*, flowing into the Black Sea.

1. The *Rhine*.—The sources and upper course of the Rhine are in Switzerland; the portion between Lake Constance and Basle forms the boundary between Switzerland and Germany. From Basle it flows north to Mentz, then, after a short curve to the west, finally turns north-west at Bingen and enters Holland near Cleves. The *tributaries* of the Rhine within Germany are the Neckar, Main, Lahn, Ruhr, and Lippe on the right bank, and the Moselle on the left. The Rhine is navigable from the sea to the falls of Schaffhausen. The portion within Germany, especially between Mentz and Bonn, is celebrated for its beauty, and the *Falls of the Rhine*, near Schaffhausen, are much admired.

2. The *Ems* rises in the Teutoburger Wald, and flows into the Dollart See, in the north-west of Germany, after a course of 258 miles.

3. The *Weser* (600 miles long), is formed by the junction of the Fulda and Werra at Münden, and is navigable throughout the greater part of its course.

4. The *Elbe* rises in the Riesen Gebirge, and flows in a generally north-west direction to the North Sea. Total length, 723 miles. Tributaries: the Mulde and Saale on the left bank, and the Spree and Havel on the right.

5. The *Oder* rises in the Sudeten Gebirge, and flows north-west into the Stettiner Haff. Its principal affluent is the Warta. Total length, 553 miles.

6. The "lower" courses only of the *Vistula* and *Niemen* are within Germany; the rest belong to Russia. The Vistula enters the Gulf of Danzig by two mouths, the Niemen falls into the Kurische Haff.

7. The *Danube* rises in the Schwarz Wald, and enters Austria at Passau, after receiving the Iller, Lech, Isar, from the Tyrolese Alps.

LAKES.—Lake Constance, or Bodensee, on the south; Ammer See, Wurm See, König See, and Chiem See, in Bavaria.

CLIMATE.—The climate of Germany resembles, in the main, that of the corresponding latitudes of Britain;¹ it is, however, somewhat colder, and the winters are more severe.

In some of the uplands the winters are remarkably severe, snow often lying on the ground from October to May; but in some of the lower river-valleys the climate is delightful, and the vine grows to perfection.

PRODUCTIONS.—The *forests* are extensive, and give shelter to numerous wild animals, such as the *wolf*, *wild boar*, and various *deer*. The minerals include *coal*, with *iron* and other metals; these are chiefly found in the Rhine province, and in the neighbourhood of the Harz. *Amber*,² *precious stones*, and some *gold*, *silver*, and *copper*, are also found.

Among the many *mineral springs* of Germany, the most famous are those of Baden-Baden, Selters, Wiesbaden, and Aix-la-Chapelle.

INHABITANTS.—The total population of the twenty-five states (and the Reichsland of Alsace-Lorraine) which are comprehended within the German Empire, was, according to the last census (December 1, 1880), 45,194,172, or an average of 213 persons to the square mile.

Nearly 50 per cent. of the people are *Germans*, and the German language is almost universally spoken.³ There are about 2,500,000 Poles and 500,000 Jews.

¹ The mean annual temperature is 48°, nearly the same as that of Great Britain.

² Amber is found on the shores of the Baltic.

³ There are two German dialects—the *Low German*, spoken in the north; and the *High German*, in the south and centre.

INDUSTRY.—Germany in general is rather agricultural than manufacturing. In many parts of the Prussian dominions, however, especially within the Rhine province and Silesia, manufactures flourish.

1. **Agriculture** employs three-fourths of the German population. The various *grains*, especially *rye* (which forms the chief food of the lower orders), are very largely raised ; as also is *flax*, for the supply of the linen manufacture. The *vine* is extensively grown in Bavaria, Württemberg, and the Rhine provinces.

2. **Manufactures.**—North Germany, on the whole, is more manufacturing than its southern half, and Prussia takes the lead in this department of industry. The *linen* manufacture is extensively pursued in Silesia ; the *cotton*, *woollen*, and *silk* manufactures, with various works in *metal*, in the western half of the kingdom. Berlin is especially noted for its glass, porcelain, jewellery, and fancy goods in general.

3. **Commerce.**—The trade of the German Empire is under the control of the *Zollverein* or Customs League, formed in 1818 and renewed in 1865, and which at present embraces all the German states, with the exception of Hamburg¹ and Bremen. The *imports* are cotton and woollen yarn and piece goods ; iron, wrought and unwrought ; coals, from Britain ; hemp, tallow, &c., and colonial produce. The *exports*² are corn, oxen, sheep, and horses ; raw sugar, wool, timber, iron, linen, and provisions.

PORTS.—Hamburg, Bremen, Lübeck, Altona, Kiel, Stettin, Danzig, Stralsund, and Memel.

INTERNAL COMMUNICATION.—Upwards of 20,000 miles of *railway*, extending through every part of Germany, connect all its considerable towns with one another, and with numerous points on the Atlantic seaboard.³ Extensive *river navigation*, greatly facilitated by *canals* joining the principal navigable rivers. Excellent *roads*, especially in Prussia, and a complete system of *telegraphic* and *postal communication*.

GOVERNMENT.—By the constitution of April 1871, all the German states “form an eternal union for the protection of the realm and the care of the welfare of the German people.” The *legislative* power is vested in two chambers—the *Bundesrath* or Federal Council, representing the states in union ; and the *Reichstag* or Diet of the Realm, elected by the people. But the supreme direction of all military and political affairs is in the hands of the King of Prussia, who is thus the Emperor of Germany.

Finance.—The general *Revenue* of the empire for the year ending March 31, 1881, was estimated at £27,000,000, and the *Expenditure* at the same amount. *Public Debt* (since 1871), £14,043,222.

Army and Navy.—Every German, being of full age and otherwise fit, is liable to military service. The imperial army, on the peace footing, numbers upwards of 410,000 men, but in war time about 1,500,000, besides other reserve forces. The German *navy* consists of about 90 vessels (of which 22 are ironclads), manned by about 6000 men. The *naval ports* are Wilhelmshafen on the North Sea, and Kiel and Danzig on the Baltic.

¹ Hamburg will shortly join the Zollverein.

² The exports from Germany to Great Britain amounted in 1879 to £21,604,890 ;

and the imports of British produce into Germany, to £18,591,545.

³ The railway system of Germany is now connected with that of Italy via the great St. Gothard Tunnel.

EDUCATION.—Education is general and compulsory throughout the empire. Public *elementary schools* in every town and village. Twenty-one *universities*, of which fourteen are Protestant.

In Prussia there are eleven grades of schools, but attendance is compulsory only at the elementary schools. The fees at the higher schools are so low that they are attended by the children of the lower as well as the middle and higher classes, hence the superiority of the Germans to all other European nations in point of education and general culture. The whole of the educational establishments of Prussia, both public and private, are under the control of the Minister of Public Instruction, but the universities only are directly maintained by the government; all other schools and colleges being mainly supported from local rates.

RELIGION.—The majority of the Prussians are *Protestants*, but south Germany is chiefly *Roman Catholic*. There are over half a million *Jews*.¹

DIVISIONS.—Before the Austro-Prussian war of 1866, Germany was politically divided into numerous states (originally thirty-nine in number), which together formed the Germanic Confederation, with Austria at the head, and Prussia occupying the second place in rank and importance. The decisive success gained by the arms of Prussia in the campaign of that year involved the break-up of the old confederation, and the establishment of a "North German Confederation," from which Austria was expressly excluded.

The Franco-German war of 1870-71 involved another (and more important) change—viz.: the creation of a new German Empire, in favour of the royal house of Prussia. All the German states, Austria, Luxemburg, and the petty principality of Lichtenstein excepted, are embraced within the newly-constituted empire. Alsace and the chief part of Lorraine—previously attached (the latter during upwards of a century, the former for nearly double that period) to France—are restored to Germany, and form a distinct dependency of the empire. Prussia is thus the recognised head of the German nation, and is virtually sovereign over forty millions of people—the vast majority of them Germans.

QUESTIONS ON THE GERMAN EMPIRE.

1. How is the "German Empire" bounded?
2. Name the principal inlets and islands.
3. Describe briefly the natural features of Germany, noting especially the highest mountains and most important rivers.
4. Enumerate the principal lakes.
5. State what you know of the climate of Germany.
6. What are the chief productions of Germany?
7. What is the total population of the empire? To what race do the vast majority of the people belong?
8. What are the chief industrial pursuits of the German people?
9. What is the *Zollverein*, and when was it formed?
10. Enumerate the principal articles of export and import.
11. What are the means of intercommunication?
12. Under what form of government is the empire?
13. How do you account for the superiority of the Germans to other nations as regards education?
14. What is the prevailing form of religion in north and south Germany?
15. How was Germany divided politically previous to the creation of the "Empire"?
16. What states are now included in the empire?

¹ According to the census (taken December 1875), 26,700,000, or 62 per cent., were *Protestants*; 15,300,000, or 36 per cent., *Roman*

Catholics; 116,000, or 0.3 per cent., various other Christian sects; 530,000, or 1 per cent., *Jews*.

The following table shows the states included in the present German Empire :—

STATES.		CAPITALS.
1. Kingdoms of	{ PRUSSIA, ... BAVARIA, ... WURTEMBERG, ... SAXONY, ...	Berlin. Munich. Stuttgart. Dresden.
2. Grand Duchies of	{ BADEN, ... MECKLENBURG-SCHWERIN, . . HESSE, ... OLDENBURG, ... SAXE-WEIMAR, ... MECKLENBURG-STRELITZ, .	Carlsruhe. Schwerin. Darmstadt. Oldenburg. Weimar. New Strelitz.
3. Duchies of	{ BRUNSWICK, ... SAXE-MEININGEN, ... ANHALT, ... SAXE-COBURG-GOTHA, . . . SAXE-ALTENBURG, . . .	Brunswick. Meiningen. Dessau. Gotha and Coburg. Altenburg.
4. Principalities of	{ LIPPE-DETMOLD, ... WALDECK, ... SCHWARZBURG-RUDOLSTADT, . SCHWARZBURG-SONDERHAUSEN, REUSS (YOUNGER LINE), . . . SCHAUMBURG-LIPPE, . . . REUSS (ELDER LINE), . . .	Detmold. Arolsen. Rudolstadt. Sonderhausen. Gera. Buckeburg. Greiz.
5. Free Cities of	{ HAMBURG. LUBECK. BREMEN.	
6. Reichsland of Alsace-Lorraine, .	{	Metz. Colmar. Strassburg.

I. PRUSSIA.

BOUNDARIES.—Prussia¹ is bounded on the *north* by the German Ocean, Denmark, and the Baltic Sea; on the *east* by Russian Poland; on the *south* by the Austrian Empire, Saxony, and others of the smaller German states, and France; on the *west* by Belgium and the kingdom of the Netherlands.

EXTENT.—Greatest length, 740 miles; greatest breadth, 455 miles. Area, 137,000 square miles, nearly two and a half times that of England and Wales, or two-thirds that of the whole German empire.

The *greatest length* is from the western frontier, near Maestricht, to the extreme eastern limit of East Prussia; and the *greatest breadth* from the northern limit of Schleswig-Holstein to the southern borders of the Rhine Province.

NATURAL FEATURES.—These have been already noticed in the preceding description of Germany. The *mountains, rivers, and lakes* of Prussia may be distinguished from those of the rest of the empire by referring to the map.²

POLITICAL FACTS.—On December 1, 1880, Prussia had a population of 27,260,331.³ Fewer than two and a half millions are Poles, who form the majority in the provinces of Posen and Prussia Proper: the remainder are Germans. The most thickly-populated portions of the kingdom are the Rhine countries and the province of Silesia.⁴

The kingdom of Prussia is an hereditary monarchy, in most respects under military forms of administration, and with a royal prerogative which, until within a recent date, has been nearly absolute. The form of administration is now, however, much more liberal. The great majority of the people of Prussia are members of the Protestant Church, but there are numerous Roman Catholics in some of the provinces, chiefly in the Rhine province, Posen, and Brandenburg. Jews are numerous in the towns. Education is in a highly advanced state among the Prussian people.⁵

Prussia includes the following provinces and towns:—

Provinces.	Towns.	Provinces.	Towns.
Brandenburg.	Berlin, Potsdam, Frankfurt-on-the-Oder.	Hanover.	Hanover, Göttingen.
Prussia Proper,	Königsberg, Danzig, Memel.	Westphalia.	Münster, Minden.
Pomerania.	Stettin, Stralsund.	Hessen-Nassau.	Frankfort-on-the-Main, Cassel, Hanau.
Posen.	Posen.	Rhine Province,	Colgong, Aachen, Elberfeld, Crefeld, Coblenz, Treves.
Silesia.	Breslau.	Lauenburg.	Lauenburg.
Saxony.	Magdeburg, Halle, Erfurt.	Jahde Territory,	Wilhelmshafen. [gen.
Schleswig-Holstein,	Altona, Kiel, Tönning.	Hohenzollern.	Hechingen, Sigmaringen.

Of these provinces Schleswig-Holstein was acquired from Denmark in 1864; Hanover and Hessen-Nassau (within which latter are embraced the former duchy of Nassau, and the electorate of Hessen-Cassel, together with the city of Frankfort-on-the-Main) were absorbed within Prussian rule after the Austro-Prussian war of 1866. Hohenzollern is a detached territory, enclosed between the states of Württemberg and Baden.

¹ Prussia, from Borussia, the country of the Borussi, who formerly inhabited what is now Prussia Proper.

² Map No. 11 in Phillips' "Comprehensive Atlas of Ancient and Modern Geography."

³ An average of 198 to the square mile.

⁴ The most thinly-peopled district is that of Küslin in Pomerania.

⁵ By the laws of Prussia, parents are compelled to send their children to school whether they can pay the fees or not.

BERLIN, the capital of Prussia, and the largest city of Germany, is on the river Spree, which joins the Havel (an affluent of the Elbe). Its population is little short of a million. Berlin is in all respects a flourishing city, one of the finest of European capitals in point of external aspect, and is noted for its iron, porcelain, and other manufactures. **Potsdam**, to the south-west of Berlin, forms the headquarters of the Prussian army.

Breslau (*population*, 289,000), in Silesia (on the river Oder), is the second city of Prussia in point of population, and is the centre of extensive trade. **Magdeburg** (*population*, 114,000), in Prussian Saxony, is on the river Elbe. **Stettin** (*population*, 80,000), near the mouth of the Oder, is one of the principal seaports. **Danzig** or **Dantzic** (*population*, 97,000), is also a great seat of the foreign commerce of Prussia: it lies near the Baltic, upon one of the channels through which the Vistula reaches the sea. **Königsberg** (*population*, 122,000), the capital of Prussia Proper, is farther to the eastward, near the outlet of the river Pregel. **Memel**, another important seaport, lies at the entrance of the river Niemen into the Kurische Haff—an inland extension of the Baltic.

The **RHINE PROVINCE** contains a greater number of large towns than any other part of the Prussian territory.

Cologne (*population*, 135,000), the most considerable, is on the left bank of the Rhine: its cathedral, and its well-known "Eau de Cologne," give it celebrity. **Elberfeld** (with the adjoining town of Barmen) is the chief seat of the cotton manufacture. **Aachen** (or Aix-la-Chapelle) is a populous manufacturing city, to the westward of Cologne, and near the Belgian frontier. **Treves** is on the banks of the Moselle; **Coblenz** is at the junction of that river with the Rhine.

The city of **HANOVER** (*population*, 106,000), the capital of the former kingdom of that name, stands in the midst of the plain of northern Germany, on the little river Leine, an affluent of the Weser.

Gottingen, to the southward of Hanover, is the seat of a celebrated university. **Emden**, the chief port of the Hanoverian territory, is at the outlet of the river Ems into the Dollart, a gulf of the North Sea. **Cassel**, the former capital of electoral Hesse, stands on the river Fulda, one of the two main affluents of the Weser. **Wiesbaden**, the capital of the former duchy of Nassau, lies a short distance from the river bank of the Rhine, below the junction of the Main. **Frankfort-on-the-Main** (*population*, 103,000), formerly a free city, is situated, as the name implies, on the river Main, which joins the Rhine about twenty miles below. It was the former seat of the Germanic Diet. **Homburg** is a few miles to the north of Frankfort.

SCHLESWIG-HOLSTEIN consists of two extensive tracts of country (divided by the course of the little river Eyder, which flows into the North Sea), which, prior to 1864, had been attached during several centuries to the crown of Denmark.

Altona, the largest city of this territory, lies on the Elbe, immediately below Hamburg, of which it forms indeed a mere suburb. **Kiel**, in a more northwardly part of Holstein, lies at the head of an inlet of the Baltic, and has a good harbour. **Tonning** is a port on the North Sea, at the mouth of the Eyder. **Lauenburg** is on the right bank of the Elbe, above Hamburg.

II. SMALLER STATES OF NORTH GERMANY.

The smaller states of north Germany included within the German Empire are :—

1. Kingdom of Saxony.
2. Grand-duchies of Mecklenburg-Schwerin, Mecklenburg-Strelitz, Oldenburg, Saxe-Weimar.
3. Duchies of Brunswick, Anhalt, Saxe-Meiningen, Saxe-Coburg-Gotha, Saxe-Altenburg.
4. Principalities of Lippe-Detmold, Waldeck, Schwarzburg-Rudolstadt, Schwarzburg-Sonderhausen, Reuss (Younger), Schaumburg-Lippe, Reuss (Elder).
5. Free cities of Hamburg, Lübeck, Bremen.
6. The territory of Alsace-Lorraine, acquired from France in 1871.

SAXONY (*area*, 6700 square miles ; *population*, 2,760,000) is intermediate in position between Prussia and the Austrian province of Bohemia, and is traversed by the river Elbe. It is bordered, on the side of Bohemia, by the Erz Gebirge and the Riesen Gebirge. Its chief towns are Dresden (the capital), Leipzig, Meissen, Chemnitz, and Freiberg.

Dresden (*population*, 197,000) stands beside the river Elbe, and is distinguished by its general beauty of aspect and its fine collections of works of art. **Meissen**, also on the Elbe, a few miles below Dresden, is celebrated for its porcelain. **Leipzig** (*population*, 127,000) is situated near the river Elster, in the plain which lies to the west of the Elbe ; it is distinguished for its university and its book-trade, as well as for the great victory gained by the German over the French arms in 1813. **Chemnitz**, the "Manchester of Saxony," is the principal manufacturing town ; and **Freiberg** is the centre of an important mining district.

MECKLENBURG (*area*, 5800 square miles ; *population*, 659,000) divided into two distinct grand-duchies, of which the more westward, to which Schwerin belongs, is in the north of Germany bordering on the Baltic Sea.

Its chief towns are **Schwerin** and **New Strelitz**, the respective capitals of its two divisions.

OLDENBURG (*area*, 2400 square miles ; *population*, 319,000) is in the north-west of Germany. It borders on the North Sea, and is enclosed on the land side by the territory of Prussia.

Its chief town is **Oldenburg** (*population*, 15,700), on the river Hunte, a tributary of the Weser.

SAXE-WEIMAR (*area*, 1400 square miles ; *population*, 293,000), the most considerable of the smaller Saxon states, lies in the very centre of Germany, within and adjoining the tract known as the Thuringian Forest.

Its chief towns are **Weimar** (the grand-ducal capital) and **Jena**.

BRUNSWICK (*area*, 1500 square miles ; *population*, 327,000) is a small inland territory, completely enclosed by the Prussian dominions.

Its chief town, **Brunswick** (*population*, 65,900), lies on the river Ocker, a tributary of the Aller, which flows into the Weser.

ANHALT (*area*, 870 square miles; *population*, 213,000) comprehends a small, and for the most part a level, tract of country crossed by the river Elbe and enclosed by the Prussian territory.

It contains the towns of **Dessau**, the capital, on the Mulde, near its junction with the Elbe, and **Bernburg**, on the Saale, an affluent of the Elbe.

SAKE-MEININGEN (*area*, 933 square miles; *population*, 194,000), **SAKE-COBURG-GOTHA** (*area*, 810 square miles; *population*, 182,000), and **SAKE-ALTENBURG** (*area*, 500 square miles; *population*, 145,000), all lie within the same central hill-region as Saxe-Weimar, and are traversed by the heights of the Thuringian forest.

The chief towns are respectively **Meiningen**, on the Werra, an affluent of the Weser; **Coburg**, on the Itz, an affluent of the Main; **Gotha**, on the Leina; and **Altenburg**, on the Pleisse, a tributary of the Elster.

LIPPE-DETMOLD (*area*, 445 square miles; *population*, 112,000) and **SCHAUMBURG-LIPPE** (*area*, 210 square miles; *population*, 33,000) are two adjoining territories within the basin of the Weser in the north-west of Germany, and completely enclosed by Prussia.

The towns of **Detmold** and **Buckeburg** are their respective capitals.

WALDECK (*area*, 460 square miles; *population*, 54,000) is a small territory to the south of Lippe, and also enclosed by Prussia.

Arolsen (*population*, 2400), the capital, lies 25 miles north-west of Cassel.

SCHWARZBURG-RUDOLSTADT and **SCHWARZBURG-SONDERSHAUSEN** are small (and partly detached) territories in the central part of Germany, enclosed between Prussia and the lesser Saxon states. The former embraces part of the Thuringian forest.

Rudolstadt and **Sondershausen** are their respective capitals.

REUSS (*area*, 540 square miles; *population*, 139,000) embraces some small tracts of country between Prussia and the various Saxon states, watered by the Elster and Saale.

It is divided into the Elder and Younger branches; the town of **Greitz** is the capital of the former, **Schleitz** of the latter.

THE HANSE TOWNS.—The “free cities” of Hamburg, Lubeck, and Bremen enjoy the privileges of distinct states, and are among the most important commercial centres in the empire.¹

Hamburg (*population*, 388,000) is the great emporium of the foreign commerce of Germany, and the seat of an immense trade with all nations.² It stands on the north bank of the Elbe, 60 miles above its mouth. **Cuxhaven**, at the mouth of the Elbe, also belongs to Hamburg.

Lubeck (*population*, 57,000) stands on the Trave, which enters the Baltic adjacent to the east coast of Holstein. It is less important now than at a former period. **Travemünde**, at the mouth of the Trave, is its outpost.

Bremen (*population*, 142,000), situated on the Weser, 40 miles above its mouth, is only second to Hamburg as a seat of commerce. Large vessels load and unload at **Bremerhafen**, at the mouth of the river.

¹ Hamburg, Lubeck, and Bremen were the principal cities in the famous Hanseatic League, which during the Middle Ages controlled the commerce of north-western Europe.

² In 1879 the exports from the United Kingdom to Hamburg amounted to £20,879,043, exclusive of bullion. More than half the trade with Germany passes through Hamburg.

ALSACE-LORRRAINE, the territory transferred from France to Germany on the conclusion of the war of 1870-71, embraces a tract lying along the left bank of the Rhine, between that river and the chain of the Vosges (Vogesen) Mountains, and stretching thence along the former Prussian border, in the direction of Luxemburg. Part of the Moselle valley, as well as the left bank of the Rhine from the Swiss border downward to the parallel of 49°, is within its limits. Alsace-Lorraine has a total area of 5580 square miles, and a population of upwards of 1,500,000.

ALSACE (German, *Elsass*) includes **Strassburg**¹ (population, 86,000), a large and ancient city, seated near the left bank of the Rhine, beside its affluent, the Ill; **Muhlhausen** (population, 57,000), a great centre of cotton and other manufacturing industry, lies between 50 and 60 miles farther south; and **Colmar** lies 40 miles south-west of Strassburg.

The principal place within the portion of **LORRRAINE** (German, *Lothringen*) transferred to Germany is **Metz**² (population, 51,000), a strongly-fortified town on the Moselle, and of much note in former as well as in recent history.

III. STATES OF SOUTH GERMANY.

The southern half of Germany is more elevated and mountainous than north Germany. It consists of plateaux of moderate elevation, crossed by detached mountain chains and groups, and rising gradually to the southward into the high region of the Alps.

The Danube (German, *Donau*) is the great river of south Germany, which it crosses from west to east, passing below Vienna into Hungary. Amongst the numerous affluents of the Danube, within the German portion of its course, are the Lech, Isar, and Inn, on its right or southern bank; the Altmühl, Nab, Regen, and March, on its left or northern bank.

The following states of South Germany are included within the newly-organised German Empire:—The kingdoms of Bavaria and Wurtemberg, the Grand-duchies of Baden and Hessen-Darmstadt, and the little Principality of Lichtenstein.

BAVARIA (area, 29,000 square miles; population, 5,022,000), in point of size, comes next to Prussia in the list of German states. It forms an upland plain or tableland about sixteen hundred feet above the level of the sea. In the south Bavaria includes some of the outlying branches of the Alps; on the east it is divided from Bohemia by the chain of the Böhmer Wald. Besides the main body of the kingdom, Bavaria comprehends a smaller and detached piece of territory to the west of the Rhine. The chief towns of Bavaria are Munich³ (the capital), Nuremberg, Augsburg, Ratisbon, Bamberg, Würzburg, and Speyer.

Munich (population, 169,000) stands on the river Isar, a considerable affluent of the Danube, in the midst of the plateau-land of South Germany, at an elevation of 1700 feet above the sea-level; it is noted for its fine collections of painting and sculpture. **Augsburg** (population, 51,000)

¹ Taken by the French under Louis XIV. in 1681; besieged and taken by the Germans in 1870.

² Besieged by the Germans in the autumn

of 1870, and surrendered by Marshal Bazaine, with an army of 170,000 men.

³ Munich, German, *München*; from *münche*, monks.

is on the Lech, which also joins the Danube, to the north-west of the Bavarian capital. **Nuremberg** (*population*, 83,000) lies in the plain to the north of the Danube, on a small affluent of the Main. **Wurzburg** (*population*, 40,000) is on the right bank of the Main. **Ratisbon** (*population*, 30,000) is on the Danube, opposite the junction of the Regen. **Speyer**, or **Spires** (*population*, 13,000), is within the detached portion of Bavarian territory, to the west of the Rhine, and on the left bank of that river.

WURTEMBERG (*area*, 7600 square miles; *population*, 1,881,000) is immediately to the west of Bavaria. Its northern portion is traversed by the Neckar, an affluent of the Rhine, but its southern districts belong to the basin of the Danube.

The capital, **Stuttgart** (*population*, 91,000), lies near the left bank of the Neckar. **Ulm** is an ancient city on the Danube, close to the Bavarian border, and is strongly fortified.

BADEN¹ (*area*, 5800 square miles; *population*, 1,507,000) is a long and narrow tract of country, lying on the east bank of the Rhine, and traversed by the range of the Schwarz Wald or Black Forest.

Its capital, **Carlsruhe** (*population*, 36,000), lies a few miles east of the Rhine. **Mannheim** (*population*, 39,000) is at the junction of the Neckar and Rhine. **Heidelberg**, on the Neckar, is a university town.

The Grand-duchy of **HESSEN-DARMSTADT** (*area*, 2800 square miles; *population*, 884,000) comprehends two detached portions of territory. The more southwardly is crossed by the Rhine, above the junction of the Main; the northwardly division is to the north of the Main.

The chief cities are Darmstadt (the capital) and Mentz. **Darmstadt** (*population*, 39,000) lies 11 miles east of the Rhine; **Mentz**, or **Mayence** (*population*, 54,000), is on the west bank of the Rhine, opposite the junction of the Main, and is strongly fortified.

LICHTENSTEIN (*area*, 68 square miles; *population*, 8000), the smallest of the German states, adjoins the east border of Switzerland, and *practically* belongs to the Austrian Empire, but has never been formally transferred. **Vaduz**, its capital, is merely a castle.

LUXEMBURG (*population*, 200,000), on the border of Prussia and Belgium, ranks as one of the German states, though attached to the kingdom of the Netherlands in the person of the Grand-duke. Its integrity as a distinct state is guaranteed by the great European powers, under a treaty executed in 1867.

QUESTIONS ON PRUSSIA AND THE SMALLER STATES OF GERMANY.

1. How is Prussia bounded?
2. What is the length, breadth, and area of Prussia?
3. What does the population of Prussia amount to? Which portions of the kingdom are most densely populated?
4. Enumerate the *mountains* and *rivers* that strictly belong to Prussia.
5. In what provinces, respectively, are Breslau, Stettin, Magdeburg, Aachen, Münster, and Danzig?
6. Which of the provinces contains the greatest number of large towns? Name some of the latter.
7. For what are Elberfeld, Cologne, and Danzig respectively distinguished?
8. In what portion of the Prussian dominions are Göttingen, Emden, Cassel, Wiesbaden, and Kiel, respectively?
9. Describe the condition of Frankfort-on-the-Main. Since what date has it been annexed to Prussia? What was its previous condition?

¹ Baden, from the town of the same name, celebrated for its baths.

10. Which of the smaller states of North Germany ranks as a kingdom? Which of them form grand-duchies? Which duchies? Which principalities?
11. In what states are, respectively, Dresden, Leipzig, Jena, Dessau, Coburg, and Detmold?
12. Name the three free cities of Germany, and describe the situation of each.
13. Describe the situation of Alsace-Lorraine, and name the principal towns within the respective portions of the territory it embraces.
14. In what respect does South Germany differ, as to its natural features, from the northern half of Germany?
15. Name the great river of southern Germany, also its principal tributaries within German limits.
16. What states are within South Germany, and what are their respective forms of government?
17. Name the principal towns of Bavaria, also those of Wurtemberg.
18. In what states, respectively, are Würzburg, Ratisbon, Ulm, and Mentz?
19. Describe the situation of Baden, and name its principal towns.
20. By what river is the territory of Hessen-Darmstadt traversed? What are its chief towns?
21. Which is the smallest of the German states? Describe its situation.

THE AUSTRO-HUNGARIAN EMPIRE.

Besides part of Germany the "AUSTRIAN EMPIRE" embraces several large countries of middle Europe, lying beyond the German limits, and inhabited by races of people distinct from the Germans.

BOUNDARIES.—Austria-Hungary is bounded on the *north* by Saxony, Prussia, and Poland; on the *east* by Russia and Roumania; on the *south* by Roumania, Servia, the Adriatic Sea, and Italy; on the *west* by Switzerland and Bavaria.¹

The *frontier-line* of the empire is about 4500 miles long, and is for the most part formed by strongly-marked natural features, but its natural compactness is politically neutralised by the heterogeneous character of its population, which consists of Slavs, Germans, Magyars, and other races.

EXTENT.—The area of Austria² proper is 115,905 square miles, and of Hungary 124,438 square miles. Including Bosnia and Herzegovina, the empire has a total area of 265,190 square miles, about four and a half times the area of England and Wales.³

The *greatest length*, from east to west, is about 800 miles.

The *greatest breadth*, from north to south, is nearly 500 miles.

COASTS.—The only sea-coast which belongs to Austria is at the head and on the eastern side of the Adriatic, and is about 500 miles in length, *i.e.*, 1 mile of coast to every 500 square miles of area.

CAVES.—Puntas de Promontore, the southern extremity of Illyria; and Capo de Istria, the most southerly point of the peninsula of Istria.

INLETS.—Gulfs of Trieste, Quarnero, and Cattaro; the last of which forms by far the best harbour in the Adriatic.

ISLANDS.—Numerous small islands along the Adriatic coast, of which the principal are:—Cherso and Veglia, in the Gulf of Quarnero; Pago, Grossa, and Brazza, off the coast of Dalmatia.

¹ By Article 23 of the *Treaty of Berlin* (July 13, 1878) it was decided that the provinces of Bosnia and Herzegovina should be occupied and administered by Austria. The total area of these provinces is 24,247 square miles.

² Austria, Ger. *Oester-reich*, eastern kingdom, so called because it formed the *eastern* portion of the dominions of Charlemagne.

³ The minor Principality of Lichtenstein also practically belongs to Austria-Hungary.

MOUNTAINS.—The Austrian Empire includes the *Bohemian Mountains* in the north-west, the eastern portions of the *Alps*, and the whole of the *Carpathian mountain-system*, besides several minor ranges. The Alps belong to the German provinces of the empire; the Carpathians to the Hungarian countries.

1. The **Bohemian Mountains** enclose Bohemia and include the Sudetic Gebirge, Riesen Gebirge, Erz Gebirge, and the Böhmer Wald. The highest point is *Schneekopf* (5274 feet), in the Riesen Gebirge.

2. The **Austrian Alps** include the Rætian Alps, with *Ortler-spitz*, 12,852 feet; Noric Alps, with *Gross Glöckner*, 12,766 feet; Carnic Alps, with *Kellerwand*, 9500 feet; Julian Alps, with *Terglou*, 10,866 feet. The principal *passes* over the Austrian Alps are the *Stelvio Pass* (9177 feet), the loftiest carriage-road in Europe; and the *Brenner Pass* (4660 feet), traversed by a carriage-road and railway, the latter opened in 1867.

3. The **Carpathians** extend for 900 miles in a semicircle from the Danube, near Presburg, to Orsova on the same river. The culminating point is *Mount Petra*, 8090 feet above the level of the sea. Besides the Carpathians proper, we have—

4. The **Little Carpathians**, between the March and Waag; the **Tatra Mountains**, with Lomnitz Peak, 8799 feet; the **Transylvanian Alps**, with Mount Negoi, 8346 feet; and the **Dinaric Alps**, with Mount Kom, 9000 feet, and Mount Dinara, 7458 feet.

PLAINS.—Between the Carpathians and the eastern spurs of the Alps is the large *Plain of Hungary*. The less extensive *Plain of Bohemia* is in the north-west part of the empire.

RIVERS.—The principal rivers of Austria-Hungary are the *Danube* and its tributaries, and the *Dniester*, flowing into the Black Sea; the *Etsch*, *Sdokka*, flowing into the Adriatic Sea; the *Oder* and *Vistula* flowing into the Baltic; and the *Elbe* flowing into the North Sea.

1. The **Danube** is the great river of Austria. It flows through the heart of the empire, from west to east; and with its numerous tributaries waters more than two-thirds of its whole extent. Of these tributaries the *Inn*, *March*, *Drave*, *Sava*, and *Theiss* are the most considerable. The Danube, although rapid, is navigable throughout Austria for steamers and rafts.

2. The **Elbe** and the **Dniester** have their upper portions within Austria—the former in the province of Bohemia, the latter in Galicia.

3. Only a small portion of the upper courses of the **Oder** and **Vistula** are within the empire. The latter forms part of the boundary between the Russian and Austrian territories.

* * The largest strictly Austrian river is the **Theiss**, which rises in Mount Galatz, in the Carpathians, and after a generally navigable course of 843 miles joins the Danube near Peterwardein.

LAKES.—Hungary contains the considerable *Lake of Balaton* or the Platten See (*area*, 380 square miles), the water of which is slightly salt. The *Neusiedler See* has disappeared within recent years. *Lake Zirknitz*, the waters of which occasionally disappear, is in the Julian Alps; and *Lakes Garda* and *Como* are on the south-west frontier.

CLIMATE.—So extensive and varied a range of country as that which falls within the empire of Austria naturally exhibits many differences of climate, soil, and vegetation. The warmest portions of the empire are those lying south of the Alps, towards the coasts of the Adriatic. The plain of Hungary is distinguished by extremes of heat and cold at the opposite seasons of the year. Upon the whole, the climate of most part of Austria is dry, healthy, and temperate.

PRODUCTIONS.—The natural productions of the empire are extremely varied. Every plant indigenous to Europe is found in Hungary alone, and the mineral wealth of the two countries is said to be greater than that of any other European country.

1. The vine thrives in Hungary, and throughout the southern provinces in general. Ranks next to France as a *wine-growing* country, yielding annually about five hundred million gallons. The *fig*, *olive*, and *mulberry* are found on the shores of the Adriatic.

2. Austria is rich in *mineral produce*. Both *gold* and *silver* are worked in Hungary and Transylvania. Within the German provinces there are rich mines of *lead* and *iron*, besides the *quicksilver* mine of Idria (in the province of Carniola, above the head of the Adriatic).

INHABITANTS.—The Austrian Empire has above 37,000,000 inhabitants—a greater population than any other country in Europe, excepting Russia. Over 21,500,000 of the number inhabit the German provinces of the empire, but hardly more than 6,000,000 of them are of the *German race*, the remainder consisting of *Czechs* (who form the bulk of the Bohemian population) and other Slavonic races. 5,500,000 Austrian subjects are *Poles*, and nearly 500,000 speak the *Italian* language. These latter inhabit the southern valleys of the Tyrol.

The remaining 15,500,000 of the Austrian population includes the people of Hungary and the adjacent territories, known under the general name of the Hungarian countries. In Hungary itself the *Magyars* form the dominant race; intermixed with them are Slavonic races, together with Germans and others. *Jews* are numerous dispersed throughout the empire.

The population of the new provinces of Bosnia, Herzegovina, and Novibazar, occupied by Austria in accordance with the Treaty of Berlin, was estimated in 1879 at 1,212,000, which raises the *total population* of the empire to 38,342,000, an average of 144 persons to the square mile.

INDUSTRY.—The industrial produce of the Austrian Empire is considerable. There are considerable manufactures, but agriculture is the principal, and in many parts the only, industry.

1. **Agriculture** occupies by much the larger proportion of the people, especially in Hungary and Galicia, which are the principal corn-growing provinces. *Rye* is the staple crop, and forms the principal article of food. Large quantities of *barley* and *oats* are grown in Galicia. Much *wine* is produced, that of Tokay being specially famed. Vast numbers of sheep and cattle are reared in various parts of the empire.

2. **Manufactures** are mostly pursued in the German provinces, where linen, woollen, and other fabrics are made. Bohemia is celebrated for its glassworks. Still Austria is not, on the whole, a manufacturing country, and manufactured goods are therefore largely imported.

3. The foreign **Commerce**¹ of Austria is checked by its limited extent of sea-coast and by the mountain-chains which have to be crossed in order to reach this coast from the interior.

PORTS.—The ports of *Trieste* and *Fiume* are the chief seats of Austrian maritime trade—Trieste for the German, Fiume for the Hungarian, provinces.

¹ The total value of the *imports* in 1878 was £57,954,000; and *exports*, £69,830,000. Less than a third of the trade is carried on with Turkey, Russia, Italy, France, and Great Britain; the rest being with Germany.

INTERNAL COMMUNICATION.—The Danube and its tributaries are the great highways of internal trade. Excellent *high-roads*, about 12,000 miles of *railway*, and well-developed *telegraphic* and *postal* services.

The Austrian government has, at great expense, constructed good roads across upwards of sixty passes, that leading from Innsbrück over Monte Stelvio to Lombardy being a magnificent road, arched over in some parts to prevent its being blocked by avalanches. Before the construction of railways through the mountainous region which lies between the interior and the sea-coast, intercommunication was necessarily limited. Now, however, railways extend from Vienna to Prague, &c., on the north; Pesth, &c., on the east; Munich, &c., on the west; and Trieste on the south, besides another line across the Brenner Pass to Lombardy. Pesth, the capital of Hungary, has direct communication by rail with the port of Fiume, on the Adriatic.

GOVERNMENT.—The Austro-Hungarian Empire is an *hereditary monarchy*, until recently nearly absolute; constitutional forms are now, however, enjoyed. The administration is dual, the Hungarian countries possessing a distinct legislature under the Hungarian crown; while the other provinces are under the immediate government of the "Reichsrath" or Imperial Council. The empire, as a whole, has no nationality. The ruling power is German; but four-fifths of the subjects of Austria are of races differing in language, habits, and ideas from the Germans, whose rule they reluctantly obey. This division of races is a source of political weakness to the empire, and necessitates the maintenance of a large standing army.

Finance.—In 1880 the *Revenue* for the "common affairs" of the empire was estimated at £13,750,000, and the *Expenditure* at £13,540,000, of which Austria proper provided 70, and Hungary 30, per cent. In 1880 the estimated revenue of *Austria proper* was £39,999,577, and the expenditure £41,271,291; and of *Hungary* £23,635,029 and £25,366,966.

Army and Navy.—The *standing army* numbers about 280,000 on the peace footing, and 1,064,000 on the war footing.¹ The *navy* consists of 55 war vessels (of which 14 are ironclads), manned by upwards of 6000 men. Pola and Trieste are the naval ports.

EDUCATION.—Public education throughout the empire was rather backward until recently, and notwithstanding the efforts of the government the great bulk of the agricultural population of the purely Slavonic provinces are as yet almost entirely illiterate. In the Germanic portions of the empire the law enforces the education of every child between the ages of six and twelve. Numerous higher-class schools and eight *universities*—of the latter, that of Vienna has about 2000 students, and that of Pesth, 1500.

RELIGION.—The *Roman Catholic* religion is followed by three-fourths of the population. *Protestants* are most numerous in Hungary and Transylvania. Many of the people of the Hungarian countries, however, are members of the *Greek Church*.

¹ A large proportion of the army was formerly obtained from the "Military Frontier," but that system has been recently abolished, and the Prussian principle of universal liability to military service has been adopted throughout the empire.

DIVISIONS and TOWNS.—The Austro-Hungarian Empire includes, in all, eighteen great provinces. Eleven of the number are within the limits of Germany, though entirely dissevered from the German Empire. These, with the principal towns in each, are as follow :—

Provinces.	Towns.	Provinces.	Towns.
Lower Austria, .	Vienna.	The Littoral, or Coast	Trieste.
Upper Austria, .	Linz.	Region, . . .	Insbrück.
Salzburg, . .	Salzburg.	Tyrol, . . .	Prague.
Styria, . . .	Grätz.	Bohemia, . . .	Brünn, Olmütz.
Carinthia, . .	Klagenfurt.	Moravia, . . .	Troppau.
Carniola, . .	Laybach.	Silesia, . . .	

VIENNA (*population*, 1,020,000), the capital of the Austro-Hungarian Empire, stands on the south bank of the Danube. It is among the largest of European capitals, and is a great centre of trade. **Linz**, in Upper Austria, is also on the Danube. **Gratz**, in Styria, is on the river Mur, an affluent of the Drave. **Trieste** (*population*, 70,000), situated at the head of the Adriatic, is the principal seaport of Austria, and is connected by rail with Vienna and other towns in the interior.

Prague (*population*, 157,000), the capital of Bohemia, comes next to Vienna in size and population, and is a place of much note in history. Prague stands on the river Moldau, which joins the Elbe. **Königgratz**, which gives its name to the decisive victory gained over the Austrians by Prussia in 1866, lies on the Upper Elbe, sixty miles east by north of Prague. **Brunn** (*population*, 73,000), in Moravia, is an important manufacturing town. Not far distant from it is *Austerlitz*, the scene of Napoleon's victory over the Austrians in 1805.

The following countries are beyond the limits of Germany. They include more than two-thirds of the total extent of the empire :—

Provinces.	Towns.	Provinces.	Towns.
Hungary, . .	Pesth, Buda, Presburg.	Dalmatia, . .	Zara, Ragusa.
Transylvania, .	Kronstadt, Klausenburg.	Galicia, . .	Lemberg, Cracow.
Slavonia, . .	Peterwardein.	Bukowina, .	Czernowitz.
Croatia, . .	Agram, Fiume.		

The first four of the above are comprehended under the general name of the Hungarian countries. They include more than half the entire extent of the empire.

Pesth and **Buda** (*population*, 250,000), which together form the chief city of Hungary, stand on the opposite banks of the Danube. Pesth (on the east bank) is of the larger size, but Buda is the more ancient. They form together a large city, and Pesth is a great seat of trade. **Presburg** (*population*, 46,000), higher up the river, was the ancient capital of Hungary during its period of national independence. **Fiume** (*population*, 13,000) is the chief seaport of the Hungarian countries. It lies at the head of an arm of the Adriatic, to the eastward of the Gulf of Trieste, and is connected by rail with Pesth *via* Agram. **Zara** (*population*, 7000), the chief place in Dalmatia, is on the east coast of the Adriatic, and is a thriving port.

GALICIA lies to the east and north of the Carpathian Mountains, and originally formed part of the independent kingdom of Poland,

Lemberg (*population*, 87,000) is a large city, with considerable trade. **Cracow** (*population*, 50,000), on the Vistula, was formerly the ecclesiastical capital of Poland, and has a magnificent cathedral.

BOSNIA and HERZEGOVINA were in 1878, in accordance with the Treaty of Berlin, placed under the direct administration of Austria, and are now virtually treated as integral parts of the empire. These provinces comprise the territory lying between Servia on the east and Dalmatia and Croatia on the west, the river Save forming the northern boundary. According to a census taken in 1879, the *population* is estimated at 1,212,172, and the *area* at 24,247 square miles. The characteristic features of these provinces are their well-wooded mountains and fertile valleys, but the long-continued and unsettled state of the country has hitherto retarded any material progress.

The largest town is **Bosna-Serai** (*population*, 60,000), the capital of Bosnia. **Mostar** (*population*, 7300) is the chief town of the Herzegovina. **Trebinje** and **Travnik** are fortified towns.

QUESTIONS ON THE AUSTRO-HUNGARIAN EMPIRE.

1. By what countries is the Austro-Hungarian Empire bounded?
2. What countries beyond the limits of Germany does the Austrian Empire embrace?
3. What two mountain-systems are (one of them partly, the other wholly) within the limits of Austria? Name the highest points in each.
4. What plains are within the limits of the empire?
5. Name the chief rivers of the Austrian Empire, and briefly describe their courses.
6. Which portions of the Austrian Empire are distinguished by the greater warmth of their climate? Name some of the fruits that belong to these provinces.
7. What descriptions of mineral wealth does the empire contain, and in which of its provinces?
8. What races of people are included among the subjects of Austria?
9. What branches of industry are most characteristic of the people?
10. Name the chief ports for the foreign commerce of the empire. What are the means of internal communication?
11. What is the form of government, and what the prevailing religion, in the Austro-Hungarian Empire?
12. Name the provinces of Austria that fall within the limits of Germany.
13. What portions of the empire come under the general name of the Hungarian countries?
14. Which of the Austrian provinces was formerly a part of Poland, and what is its chief city?
15. Say what you know of Vienna, Grätz, Trieste, Prague, Brunn, Pesth, Presburg, Fiume, Zara, Cracow, Bosna-Serai, and Mostar.

DENMARK.

DENMARK¹ is a small country in the north of Europe. Denmark proper consists of a peninsula and an adjacent group of islands lying at the entrance of the Baltic Sea. The Duchies of Sleswig and Holstein, formerly attached to the Danish crown, were severed from Denmark in 1864.

BOUNDARIES.—The boundaries of Denmark are—on the *north*, the Skagerrack; on the *east*, the Kattegat, and the Baltic Sea; on the *west*, the North Sea; on the *south*, Germany.

EXTENT.—The present area of the kingdom of Denmark is 14,553 square miles—less than half the area of Scotland, and about one fourth that of England and Wales. But if we include Iceland and the Farøe Islands, the total area is 54,819 square miles.

¹ Denmark, *Dane-March*, the march or frontier of the Danes.

COASTS.—The coast-line of Denmark is extensive, being nearly 4000 miles in length, and the position of the country is one favourable to maritime commerce. The three channels of entrance to the Baltic—known as the Sound, and the Great and Little Belts—lie between the Danish islands and the mainland on either side. The *Sound* is between the island of Zealand and the coast of Sweden. The *Great Belt* is between the islands of Zealand and Fünen; and the *Little Belt* between Fünen and the coast of Jutland. Denmark terminates to the north in a point of land, or cape, called the *Skaw*.

Along the west coast of Jutland and in the Kattegat are numerous shoals and sand-banks. The western coasts, regular and unbroken and containing no harbours, contrast strongly with the eastern coast-line, which is penetrated by numerous inlets, the most important of which, the *Liim Fiord*, extends across the entire breadth of the peninsula from the Kattegat to the North Sea.

ISLANDS.—A third of Denmark consists of islands, of which *Zealand* (2600 square miles), *Fünen* (1250 square miles), *Laaland* (462 square miles), *Bornholm* (221 square miles), and *Falster* (178 square miles) are the largest.

NATURAL FEATURES.—Denmark is a flat country, often marshy towards the coasts, which in some places require to be protected by dykes, as in Holland. No part of Jutland reaches an elevation of more than 600 feet above the sea-level.

Denmark has no rivers of any large size, though small streams are numerous. The principal are the Guden and Veile, which flow into the Kattegat, and the Skive, which falls into the Liim Fiord, all of which are less than 50 miles in length. There are numerous lakes, but none of any considerable size. Denmark is generally level and monotonous, but there are several remarkably beautiful and well-wooded tracts, especially in the islands.

CLIMATE.—The climate of Denmark is somewhat colder and moister than that of Britain, but on the whole temperate and healthy. The winters are severe,¹ and occasionally the narrow channels between the islands are frozen over.²

PRODUCTIONS.—The chief sources of national wealth are found in the rich pastures, and in the fisheries carried on in the adjacent seas. There are few wild animals, and no minerals, except limited quantities of coal, marble, and building-stone in the island of Bornholm. Turf is generally used for coal.

INHABITANTS.—The *Danes* belong to the Scandinavian family of nations, and in 1878 were estimated to number 1,940,000. The Farøe Islands, Iceland, and Greenland have a total population of about 90,000.

Education.—Widely diffused by means of primary and secondary schools under the control of the government. One university (at Copenhagen) and several public colleges in the larger towns.

Religion.—The established religion is the Lutheran, to which 99 per cent. of the people belong, but all sects are tolerated.

¹ Snow falls on about 30 days in the year, and the mean winter temperature at Copenhagen is 32.9° F. (32° F. is the freezing-point

of fresh water). The mean annual temperature is 47.18° F.

² In 1658-59, the army of Charles X. crossed the frozen channels from Jutland to Zealand.

INDUSTRY.—The industry of Denmark is chiefly devoted to the soil. The rearing of cattle, with the culture of the land, employ the greater number of the people. Oxen, with butter and cheese, and other farm and dairy produce, are largely supplied to other countries, and a considerable amount of maritime commerce is thus carried on. The Danes are good sailors, and have always been noted for their devotion to maritime pursuits.

The imports from the United Kingdom in 1879 were valued at £2,199,000, and the exports at £4,711,000. The mercantile navy consists of over 3000 vessels, about 200 of which are steamers. Copenhagen is the principal port.

INTERNAL COMMUNICATION.—Excellent roads, especially in the islands, above 900 miles of railway, and several canals.

The *Lim Fiord*, which extends across the country from the Kattegat to the North Sea, throws off several arms, which furnish extensive means of internal communication. The natural channel (formed during the storm of Feb. 3, 1825) connecting the fiord and the sea having become closed with sand, the *Thyborøn Canal* was cut, but it can only be used by very small vessels.

GOVERNMENT.—Denmark forms an hereditary monarchy, limited by provincial states. The sovereignty over Holstein, long attached to the Danish crown, formerly gave the King of Denmark a place in the now extinct Germanic Confederation.

Finance.—In 1880–81 the *Revenue* amounted to £2,645,000, and the *Expenditure* to £2,311,000. The *Public Debt* has been reduced from £14,568,000 in 1866 to £9,629,000 in 1880.

Army and Navy.—The regular army consists of 35,000, and the army of reserve about 13,000. The navy consists of 30 war vessels, manned by about 1000 men.

DIVISIONS and TOWNS.—Denmark is divided for administrative purposes into five *Districts* and eighteen *Amter*. The districts with their chief towns are:—

Districts.	Chief Towns.	Districts.	Chief Towns.
I. { Zealand, Möen, Samsø, }	Copenhagen, Elsinore, Sorø, Roskilde, Fredericksborg.	IV. { Fünen, Langland, } Arrø,	Odense, Svendborg, Nyborg.
II. Bornholm,	Rønne, Nexø.		
III. { Lolland, Falster, }	Maribø, Nakskov.	V. Jutland,	{ Aalborg, Aarhus, Viborg, Viele, Thisted, Randers, Ribe, Faaborg.

COPENHAGEN¹ (population, 193,000), the capital of Denmark, is on the east coast of Zealand. It has extensive docks and great trade, and is strongly fortified.

Elsinore lies about twenty miles north of Copenhagen, at the northern entrance of the Sound. Roskilde, an ancient town, the former residence of the Danish kings, is to the west of the present capital.

¹ Copenhagen, or Kjöbenhavn, merchant's haven. The harbour is formed by the channel between Copenhagen proper and Christianshavn on the adjacent island of Amager.

None of the towns of Jutland are of very considerable size. **Aalborg** is on the east shore of the Liim Fiord; **Aarhuus** (population, 16,700), on the east coast, is the centre of the railway system of the peninsula.

The island of **Bornholm**, which lies in the Baltic considerably east of the other islands, belongs to Denmark. Its capital is Rönne.

FOREIGN POSSESSIONS.—Besides Iceland and the Farøe Islands, Denmark has some settlements on the west coast of Greenland (North America), with the islands of Santa Cruz, St. Thomas, and St. John, in the West Indies.

1. The **FAROE ISLANDS**,¹ in the Atlantic Ocean, to the north of the British islands, comprise a group of 35 islands (of which only 17 are inhabited), which rise above the waters of a stormy sea. They have an area of 510 square miles, and about 7000 inhabitants, of Scandinavian origin, who are chiefly occupied in fishing, or in collecting the feathers and down of the numerous birds which find shelter amidst their cliffs. They contain the small town of **Thorshavn** (population, 600).

2. **ICELAND** has an estimated area of 40,000 square miles, and is therefore next to Great Britain, the largest of European islands. Its northern coasts just touch the border of the frigid zone. The climate is cold, and the surface generally barren—exhibiting a succession of volcanic mountains and plains covered with lava. Several of the volcanoes² are in occasional eruption—amongst them Mount Hekla, which is upwards of 5000 feet high.

The most remarkable feature of Iceland, however, consists in its boiling springs or *geysers*, which are in the south-west corner of the island, near Mount Hekla. The geysers are fountains which at intervals throw up columns of hot water and spray. The largest of them—called the Great Geyser—throws up a column of water to the height of 50 to 150 feet.

Iceland has about 70,000 inhabitants, who are chiefly employed in rearing cattle and other farm labours. The only town is **Reikiavik** (population, 2000), on the south-west coast.

QUESTIONS ON DENMARK.

1. How is Denmark bounded? What is its extent?

2. What cape forms the northernmost point of Denmark? What two channels does it adjoin?

3. What portions of land do the straits called the Sound, the Great Belt, and the Little Belt respectively divide?

4. Describe briefly the natural features and climate of Denmark.

5. What are the principal productions?

6. In what branches of industry are the Danes chiefly engaged, and what are the means of inland communication?

7. Under what form of government is Denmark? In what state is education, and what is the established religion?

8. Name the five political divisions of Denmark and the chief towns in each.

9. On what island is the capital of Denmark situated? What strait does it adjoin?

10. What do you know of **Elsinore**, **Aalborg**, and **Aarhuus**?

11. Which of the former possessions of Denmark forms part of Germany? What two cities does it contain?

12. What foreign possessions belong to Denmark?

13. Where are the **Farøe Islands**? What town do they contain?

14. Where is **Iceland**? What kind of natural features does it exhibit?

15. What are the geysers, and where are they situated?

¹ **Farøe**, from Norse *faar*, sheep; and *oe*, an island.

² A volcano is a burning mountain—that is, a mountain from which burning matter (as red-hot ashes, stones, and lava) is occasionally thrown forth. The mountain is at such times said to be in eruption. Of the substances thrown out by volcanic moun-

tains, lava is the most curious. It is a mineral substance, rendered liquid by the intense heat which exists in the heart of the mountain, but which gradually cools and hardens as it flows down the mountain-side. The summit of a volcano generally has a depression, or hollow, called a crater (from the Latin *crater*, a cup).

SWEDEN AND NORWAY.

SWEDEN¹ AND NORWAY,² which are distinct (though adjoining) countries, are under a single government—the kingdom of Sweden and Norway. They form a large peninsula, situated in the north-west of Europe, between the Atlantic Ocean and the Baltic Sea. Sweden is the eastern part of the peninsula; Norway its western side. Sweden and Norway are together known as Scandinavia.

BOUNDARIES.—The boundaries of Sweden and Norway are—on the *north*, the Arctic Ocean; on the *west*, the Atlantic; on the *south*, the Skagerrack, the Kattegat, and the Baltic; on the *east*, the Baltic Sea, the Gulf of Bothnia, and part of Russia.

EXTENT.—In size, Sweden and Norway are little short of 300,000 square miles, or considerably more than five times the area of England and Wales.

The actual *area* of Sweden is officially estimated at 170,979 square miles, and of Norway 122,869 square miles, giving a total of 293,848 square miles. The *greatest length* is about 1150 miles, and the *greatest breadth* 450 miles. The *mean breadth* of Sweden is about 250 miles. Norway has an average breadth of 200 miles in the south, but only 65 miles in the centre and north.

COASTS.—The coasts of both Sweden and Norway are very indented and irregular, those of Norway even more so than is the case with the Swedish shores. The numerous long and narrow arms of the sea which penetrate the coast of Norway are called *fjords*.³ Many of the fjords are of great extent, running, in some cases, more than a hundred miles inland. They are bordered on either side by steep and lofty rocks. The total length of the *coast-line* is estimated at 3400 miles, or 1 mile of coast to every 86 square miles of *area*. The principal features are :—

1. **CAPES.**—The *North Cape* (1200 feet high), on the island of Mageröe, is the most northerly headland of Norway, and also of Europe. *Cape Nordkyn* is the most northerly point of the mainland of Europe; and *Cape Fästerbo* forms the south-west extremity of Sweden. The *Naze* is the southernmost point of Norway.

2. **INLETS.**—Of the *fjords* of Norway, the principal are Varanger Fiord, on the north; Trondheim and Sogne Fjords, on the west; and Christiania Fiord, on the south. Between the south-west coast of Sweden and the island of Zealand is the narrow strait called the Sound.

ISLANDS.—The Lofoden, Vigten,⁴ and other numerous groups of islands off the west coast of Norway; the islands of Gothland and Aland, in the Baltic Sea, to the east of Sweden.

Between the two southernmost of the Lofoden islands is the famous whirlpool of the *Mälstrom*, which, however, may be safely crossed in boats, except during severe storms. All the Norwegian islands are generally high and rocky, while those of Sweden are for the most part level and arable.

¹ Sweden, or *Sea Rige*, Sweden's kingdom.

² Norway, or *Nor Rige*, northern kingdom.

³ The term *fjord* is peculiar to Scandinavian geography. The fjords of the Norwegian coast resemble the *lochs* of the western coast of Scotland. The term *fjord*, however,

is restricted to arms of the sea; *loch*, on the other hand, is given to inland lakes as well as arms of the sea.

⁴ Rolf or Rollo, the ancestor of William the Conqueror, came from the Vigten Islands.

SURFACE.—Norway is a mountainous country, with a very elevated and irregular surface. Sweden is much less elevated, and consists for the most part of extensive plains, with a gradual slope towards the Baltic. The whole of Norway is one vast mountain-region, which rises steeply out of the Atlantic Ocean. The waters of the ocean penetrate the mountain wall, advancing far inland, and thereby forming the *fjords* already mentioned. The whole of the mountain-ranges of Norway and Sweden are frequently referred to under the general name of *Scandinavian Alps*, and are locally distinguished, from north to south, as—

1. **Kiølen Mountains**, highest point, *Sulitelma*, 6152 feet.
2. **Dovrefield**,¹ highest point, *Sneehatten*, 7600 feet.
3. **Ymesfield**, highest point, *Galthöppigen*, 8546 feet.
4. **Sognefield**, highest point, *Shagstlostind*, 8101 feet.
5. **Hardangerfield**, highest point, *Jöklen*, 6533 feet.
6. **Gaustafeld**, highest point, *Gausta*, 6174 feet.

RIVERS.—Both Sweden and Norway have a vast number of rivers—many of them mountain-torrents, but others expanding into considerable streams. Owing to the proximity of the great mountain-ranges to the western coasts, those which flow into the Atlantic are short and rapid, while those which drain the eastern slope and flow into the Baltic are longer, but are frequently interrupted by falls and rapids. Except in the south of Sweden none of the Scandinavian rivers are navigable, but are nevertheless made use of to float the timber cut in the inland forest regions to the seaboard.

The two principal rivers of Sweden are the *Dal* and the *Göta*. The *Dal* flows into the Gulf of Bothnia; the *Göta* into the Kattegat. The largest river of Norway is the *Glommen*,² 400 miles long, which flows into Christianitya Fiord, at the head of the Skagerrack.

Other less important rivers are:—

1. *Flowing into the Arctic*—Tana, Alten.
2. *Flowing into the Atlantic*—Sundals, Rouma.
3. *Flowing into the North Sea*—Drammen, Glommen.
4. *Flowing into the Baltic*—Tornea, Lulea, Pitea, Umea, and Dal.

Waterfalls are numerous and most picturesque. The most noted are the *Rjukan Foss*³ (2000 feet), on the river *Maan*, one of the finest in Europe; *Mörk Foss* (1040 feet), one of the loftiest falls in Europe; the *Vöring Foss* (800 feet); and the *Trolhättan*, on the *Göta*.

LAKES.—Lakes are numerous in both countries. The largest in Sweden are *Wener* (area, 2150 square miles), the third largest lake in Europe, *Wetter* (733 square miles), and *Mälar* (537 square miles). The largest in Norway is Lake *Miösen*.

In Norway alone the lakes are estimated to number 30,000, while in Sweden they cover nearly a tenth part of the total area of the country. All the great lakes form an excellent means of inland communication, which is greatly extended by means of canals. Thus there is through communication between Güttenburg on the Kattegat and Soderköping on the Baltic by means of the river *Göta*, *Trolhättan Canal*, *Lake Wener*, *Göta Canal*, and *Lake Wetter*.

¹ Field, or *fjeld*, a range of mountains.

² The *Glommen* waters the *Gudbrandsdal*, the longest of the Norwegian valleys. This

valley is 150 miles long, but nowhere more than 7 miles broad.

³ *Foss*, waterfall.

CLIMATE.—Sweden and Norway have a climate which is considerably colder than that of England, owing to their higher latitude. But the air in both countries is generally dry and healthy, and the winters, though long, are less severe than in similar latitudes elsewhere. This is especially the case with Norway. The winter is seven or eight months long in the north, but the summer, though short, is, especially on the western coast districts of Norway, very hot and dry. More rain falls in Norway than in Sweden, but the climate is on the whole salubrious.¹

PRODUCTIONS.—The most valuable among the natural productions of Scandinavia are found in its mines, its forests, and its fisheries. *Copper* and *iron* are abundant in both countries. The extensive forests furnish an inexhaustible supply of timber (chiefly pine, or wood properly known as *deal*), which is largely exported to other nations. The *fisheries* among the Lofoden Islands and upon the Baltic coasts are an important source of national wealth.

Among the *wild animals* are the bear, wolf, fox, lynx, and lemming,² while the most remarkable *domestic animal* is the reindeer. Among the *wild birds* are the eagle, hawk, ptarmigan, and eider duck.

INHABITANTS.—Sweden and Norway are thinly-peopled countries—necessarily so, from the vast extent of their mountains and forests, and the severity of the climate towards their northern limits. Norway, which consists almost wholly of mountains, is the least populous among the countries of Europe. It is only the shores of the *fjords* that are capable of habitation, and it is in such localities that the few towns are uniformly situated.³

The *population* of Sweden numbers upwards of four and a half millions, and that of Norway a million and three-quarters.⁴ The people are, with the exception of a few Laplanders and Finns, of the *Teutonic race*, and both the Norse and Swedish tongues are mere dialects of essentially the same language.

INDUSTRY.—It is only in the south of Sweden that *agriculture* is much pursued. But the people of both countries are expert seamen, and a great deal of maritime *commerce* is carried on. Their iron and copper, their timber, and the produce of their fisheries (dried and salted, for consumption by other nations), give the industrious Swedes and Norwegians a place in the general markets of the world. They export these things in return for the luxuries and various native produce of other lands.

The extreme north of Sweden and Norway is inhabited by the *Laplanders*, a people of pastoral habits, whose sole wealth consists in their herds of reindeer.

¹ The mean annual rainfall on the west coast of Norway is 73 inches, but at Upsala, in Sweden, only 16 inches. Bergen is probably the wettest place in Europe, the mean rainfall being 82 inches, or nearly four times that of Paris, and more than five times that of St. Petersburg.

² A species of field-rat which occasionally appears in Norway in vast swarms, and which are almost as destructive to the crops as the locusts of tropical lands.

³ It was from the bleak and rocky coasts of Norway that the terrible *Vikings* came, who for centuries desolated the maritime countries of western Europe.

⁴ Population—Norway (December 31, 1875), 1,806,900; *i.e.*, 14 to the square mile. Sweden (December 31, 1879), 4,508,901, or 26 to the square mile. *Cf.* Average density of population in England (463) and Belgium (460).

The average annual value of the imports and exports is estimated at £16,000,000 and £12,500,000 for Sweden, and £8,963,000 and £5,684,000 for Norway. The mercantile navy consists of nearly 4500 Swedish, and upwards of 8000 Norwegian, vessels.

PORTS.—Stockholm, Göttenborg, Carlsrona, and Norköping, *in Sweden*; Christiania, Bergen, Drammen, and Drontheim, *in Norway*.

INTERNAL COMMUNICATION.—Few good roads. Excellent steamboat services on the navigable rivers and lakes and along the coast. Upwards of 3500 miles of railway open in Sweden, and nearly 1000 miles in Norway.

The *Göta Canal*, in Sweden, completes the partly natural water communication between the North Sea and the Baltic by the river Götha and lakes Wener and Wetter. To avoid the Falls of Trollhättan an artificial channel, nearly a mile long, has been cut in the solid rock.

GOVERNMENT.—The government of Sweden and Norway is an hereditary and limited monarchy.¹ Norway retains some peculiar privileges, and has a separate legislative assembly called the *Storting* or "Great Court," which possesses greater powers than the elected *Diet* of Sweden.

Finance.—The annual *Revenue* and *Expenditure* of Sweden average respectively £4,000,000; and of Norway, £2,300,000. The *Public Debt* of Sweden amounts to nearly £12,000,000; that of Norway, £5,089,000.

Army and Navy.—The Norwegian *army* numbers nearly 50,000 men; that of Sweden upwards of 150,000 men. The united *navy* consists of 370 vessels, carrying upwards of 500 guns, and manned by 7000 men.

EDUCATION.—Education is compulsory, all children between seven and fourteen being bound to attend at the public schools. Public education is especially well advanced in Sweden.² There are excellent superior schools and colleges in most of the towns, and also three *universities*—Upsala and Lund in Sweden, and Christiania in Norway.

RELIGION.—In religion the people of both countries, with the exception of about 11,000 Dissenters, are *Lutherans*, or members of the Reformed Protestant Church.

COLONIES.—Sweden has now no colonies: the island of St. Bartholomew has been sold to France.

DIVISIONS and TOWNS.—Sweden embraces three great divisions, called Sweden Proper, Gothland, and Nordland. These are further divided into twenty-four governments or *län*s. Norway also forms three great divisions—Sondenfields, Nordenfields, and Nord-

¹ Previous to the year 1814 Norway formed part of the Danish kingdom, but by the Treaty of Kiel (January 14, 1814) the Danish king ceded Norway to the king of Sweden. The Norwegians, however, would not ratify this arrangement, and elected Prince Frederick of Denmark as their king. The prompt entry of Swedish troops, and the refusal of the European Powers to acknowledge the

newly-elected king, forced the Norwegians to conclude a convention with Sweden, by which the crowns of the two kingdoms were united—Norway still retaining a separate government, constitution, and code of laws.

² In 1878, 98 per cent. of the Swedish children, between eight and fifteen years of age, were in regular attendance at the public schools.

landens, which are subdivided into districts or *amts*. The principal towns in each division are shown in the following table:—

IN SWEDEN.		IN NORWAY.	
Divisions.	Towns.	Divisions.	Towns.
Sweden Proper, .	Stockholm, Upsala.	Sondenfields, . .	Christiania.
Gothland, . . .	Gottenborg, Carls- crona.	Nordenfields, . .	Bergen, Dron- theim.
Nordland, . . .	Sundsväl.	Nordlandens, . .	Hammerfest.

STOCKHOLM¹ (*population*, 173,000) is the capital of Sweden and the seat of general government for the two countries. It occupies a highly picturesque situation at the entrance of the Mälar lake, near the coast of the Baltic.

Upsala (*population*, 13,500), one of the most ancient of Swedish cities and the seat of a famous university, is to the north-west of the capital. **Carls-crona** (*population*, 17,800), on the south coast, is the naval arsenal of the kingdom. **Gottenborg** (*population*, 76,000), at the outlet of the river Göta into the Kattegat, is the second city in Sweden in amount of population and commercial importance.

CHRISTIANIA² (*population*, 116,000),³ the capital of Norway, lies at the head of a long fiord called by its name, and has an important university founded by the Danish Government in 1811.

Bergen (*population*, 40,000), on the west coast, is the second place in point of size, and is a great station for the Norwegian fisheries. **Dron-theim** (*population*, 21,000), farther to the northward, is an ancient city, the former capital of the country. **Hammerfest** (*population*, 1200), only a short way from the North Cape, possesses the distinction of being the most northerly town in Europe.

QUESTIONS ON SWEDEN AND NORWAY.

1. In what part of Europe are Sweden and Norway situated? Give their boundaries and extent.
2. By what are the coasts of Norway distinguished?
3. What are the extreme north and south points of Norway?
4. What islands belong to Norway and Sweden?
5. Compare briefly the two countries as to their relief or surface.
6. Name the principal sections of the Scandinavian Alps, and give the elevation of their culminating points.
7. Name the principal rivers of Sweden and Norway, with the seas into which they flow.
8. Mention the principal lakes of Sweden and Norway.
9. Describe briefly the climate of Sweden and Norway.
10. What natural productions of value do Sweden and Norway possess?
11. State what you know of the inhabitants of Sweden and Norway.
12. What are the chief industrial pursuits of the Norwegians and Swedes?
13. In what does their commerce chiefly consist?
14. What is a marked feature in the internal communication in the south of Sweden?
15. What is the form of government, and what the national religion, in Sweden and Norway?
16. Name the three divisions of Sweden, with the principal towns of each.
17. What city forms the capital of Sweden, and how is it situated?
18. Point on the map to the chief city of Norway. At the head of what inlet does it stand?
19. Where are the following places:—Upsala, Carls-crona, Gottenborg, Bergen, Drontheim, and Hammerfest?

¹ Stockholm, "the Isle of piles." Stockholm is partly built on islands, and is hence called the "Venice of the North."

² Christiania, founded by Christian IV., hence its name.

³ Census, January 1, 1880.

RUSSIA.

RUSSIA is a country of eastern Europe. It is of vast extent, embracing more than half the European continent.

BOUNDARIES.—Russia is bounded on the *north* by the Arctic Ocean; on the *west* by the Baltic Sea, Prussia, and Austria; on the *south* by Roumania, the Black and Caspian Seas, and Mount Caucasus; on the *east* by Siberia or Asiatic Russia.

EXTENT.—In size Russia includes upwards of 2,000,000 square miles—more than thirty-four times the area of England and Wales. In distance from north to south it measures upwards of 1700 miles, and about the same in the direction of east and west.

The Russian Empire has never been actually surveyed, but its area is officially estimated at 8,444,766 square miles, of which 2,092,139 square miles are in Europe.

COASTS.—Russia possesses a coast-line upon four inland seas, the Baltic, Black, Caspian, and White Seas, besides part of the shores of the Arctic Ocean. The high latitude (and consequently cold climate) of the White Sea and adjoining ocean limits their navigation to a short period of each year, during which alone they are free from ice. The same thing is the case, during some months annually, with the Baltic Sea.¹ Both the Baltic and the Black Seas are nearly land-enclosed, only communicating with the ocean by narrow straits, which are in the keeping of other nations. The Caspian is merely a vast lake, without outlet.

The peninsula of the Crimea indents the shores of the Black Sea, and is connected with the mainland by the Isthmus of Perekop. The *Sea of Azov* (13,000 square miles) is an arm of the Black Sea, from which it is entered through the Strait of Kertch or Yenikale. The *Gulf of Finland* is an arm of the Baltic, and is 260 miles long and from 25 to 90 miles broad.

The total length of coast-line is estimated at 5500 miles,² of which 2500 belong to the Arctic Ocean, and 1000 to the Baltic.

ISLANDS.—*Waigatz*, *Nova Zembla*,³ and *Spitzbergen*,⁴ in the Arctic Ocean; *Åland*, *Dago*, and *Oesel*, in the Baltic; and several small islands in the Caspian Sea.

None of the islands in the Arctic Ocean are permanently inhabited, except *Waigatz*, which is occupied by a few Samoiedes, but they are nevertheless valuable as hunting and fishing stations. The *Nova Zembla* group lies north of *Waigatz*, from which it is separated by the Strait of Kara. A remarkably deep inlet, called the Matyushin Shar, extends right across the main island. *Spitzbergen* is the name of a group of islands in the Arctic Ocean, between 76° and 81° N. lat., and 11° and 23° E. long., all of which are more or less mountainous, and for the most part covered with enormous glaciers and

¹ The Baltic coasts are covered with ice for about five months in the year, and the Arctic coasts are similarly closed for about eight or nine months.

² Or 7 mile of coast to every 450 square miles of area.

³ *Nova Zembla*, new land.

⁴ *Spitzbergen*, peaked mountains. Some assert that the archipelago of *Spitzbergen* was discovered by Sir Hugh Willoughby in 1533, others say by Barents in 1596.

snowdrifts. Both Spitzbergen and Nova Zembla have acquired additional interest in connection with the expeditions to the Polar Seas—the latter more especially in connection with the recent discovery of the north-east passage by Professor Nordenskiöld. The *Aland Islands* are important from their position near the entrances of the Gulfs of Bothnia and Finland, but the principal fortress, *Bomarsund*, was destroyed by the combined English and French fleets in 1854.

SURFACE.—Russia exhibits a succession of immense and nearly level plains, which slope gradually towards the Baltic, Black, Caspian, and White Seas. The most perfectly level of these plains are in the south-easterly division of the country, where they are called *steppes*. The steppe is an open plain, without trees, and generally without any perennial streams. Its surface during the dry season of the year (the period of summer and autumn) is parched, arid, and often sandy, the vegetation burned up by the intense heat; but at other times it exhibits a luxuriant expanse of grass, upon which the inhabitants pasture immense herds of horses and cattle. The lowest portions of the steppe-land are towards the Caspian Sea, where the soil is often impregnated with saline particles, and saltwater lakes are of frequent occurrence.

MOUNTAINS.—The only mountains belonging to European Russia are the *Ural* on the eastern, *Mount Caucasus* on part of the southern border-line, and the *Valdai Hills* in the centre.

1. The *Ural Mountains* extend for 1200 miles, from the shores of the Sea of Kara on the north to the river Ural, near Orenburg, on the south. The main chain is flanked on either side by parallel minor ranges, which are less numerous and closer together in the north than in the south, where the entire width is upwards of 100 miles. The average height is between 2000 and 2500 feet, but the highest point, *Toll Pass*, attains an elevation of 5540 feet.

2. The chain of *Mount Caucasus* (700 miles long), between the Black Sea and the Caspian, has an average elevation of from 8000 to 9000 feet, and culminates in *Mount Elburz* (18,526). The height of the *snow-line* varies from 9600 to 12,200 feet, while the limit of vegetation is about 9000 feet. Of the few *passes* the principal is that of *Dariel*, on the eastern side of Mount *Kasbeck*.

3. The *Valdai Hills*, although their mean height does not exceed 1000 feet, are yet important as forming the great water-parting of Russia. They contain the sources of the *Dvina* and *Volga*. The *Volga* rises at a point only 633 feet above the level of the Caspian, into which it flows.

RIVERS.—The rivers of Russia are naturally divisible into four sections, according to the maritime basins they belong to. From the central water-shed the country slopes north towards the Arctic, west towards the Baltic, south towards the Black Sea and Sea of Azov, and south-east towards the Caspian.

The following are the principal rivers :—

- (1.) *Flowing into the Baltic Sea*, the *Neva*, *Dvina*, and *Niemen*.
- (2.) *Flowing into the Black Sea*, the *Dniester*, *Dnieper*, and *Kouban*.
- (3.) *Flowing into the Sea of Azov*, the *Don*.
- (4.) *Flowing into the Caspian Sea*, the *Volga* and *Ural*.
- (5.) *Flowing into the White Sea*, the *North Dvina* and *Onega*.
- (6.) *Flowing into the Arctic Ocean*, the *Petchora*.

1. The *Neva* (40 miles long) has the capital of the Russian Empire, St. Petersburg, at its mouth, and is the outlet for the great lakes. It is connected by *canals* with the *Volga*, and is frozen over for five months of the year.
2. The *South Dvina* and *Niemen* have each a navigable course of about 500 miles. Part of the lower course of the *Niemen* is in Prussia.
3. Only the "middle" course of the *Vistula* is within Russia.
4. The *Dniester* (700 miles) and *Dnieper* (1200 miles) are navigable through the greater part of their courses.
5. The *Don* (1100 miles) is navigable only during a part of the year.
6. The *Volga* (2200 miles)¹ is the longest of European rivers. It rises in the *Valdai Hills*, and enters the *Caspian* by numerous mouths, draining with its tributaries (*Oka*, *Kama*, *Moskva*, &c.) nearly a seventh of Europe. During the winter it is frozen over, but in summer it is extensively navigated. The *Volga* is connected by canals with the *Dvina*, *Neva*, &c.
7. The *Ural* (which forms one of the natural boundaries between Europe and Asia) has a course of 1150 miles, and is navigable for small vessels.
8. The *Petchora* (900 miles), which rises in the *Ural Mountains*, is the only large European river that falls *directly* into the *Arctic Ocean*.
9. The *North Dvina* has a navigable course of upwards of 700 miles, and is connected by canals with the *Neva* and the *Volga*. At its mouth is the port of *Archangel*.

LAKES.—The two largest are *Ladoga* and *Onega*; next are *Saima*, *Peipous*, *Enara*, *Bieloe*, and *Ilmen*. All of these are in the north-west part of the country, most of them situated near the *Baltic Sea*. There are some shallow saltwater lakes in the steppes—the largest of them is *Lake Ielton*, situated east of the *Volga*.

Lake Ladoga (6633 square miles) is the largest lake in Europe. It is drained by the *Neva*, and connected with *Lake Onega* (3280 square miles) by the *Svir*. Both are shallow, and their navigation is further impeded by rocks and quicksands. *Lake Peipous* (or *Tchouds Koe*) has an area of 1250 square miles, and is drained by the *Narva*. *Lake Saima* is extremely irregular, and is by far the largest sheet of water in Finland, its area being probably 2000 square miles. *Ielton* is the saltiest lake in Europe, and yields yearly above 100,000 tons of salt.

CLIMATE.—Russia has great variety of climate, owing to its extensive range of latitude.² Its northern part is cold compared with the climate of England, but towards the south it becomes warmer. The Russian winters are very long and severe, while the summers are intensely hot. These extremes of heat and cold are experienced throughout Russia, but more so within the steppe-region than elsewhere.

The severity of Russian winters may be inferred from the fact that most of the rivers are for several months covered with ice of great thickness. The *White Sea* in the north is always, and the *Sea of Azov* in the south occasionally, frozen over in winter.

PRODUCTIONS.—The forests, which still cover more than one-third of Russia, furnish some of its most valuable productions—timber, tar, pitch, turpentine, and potash. Its mines of iron and platinum, within the district of the *Ural*, are also of high value. Copper, salt, marble, coal, and gold are also found.

¹ The *Volga* is thus ten times longer than the *Thames*, and rather more than nine and a half times longer than the

Shannon—the longest river in the British Islands.

² From 40° to 70° N. Lat.

The reindeer and polar bear are found in the north, the common bear, wolf, &c., in the large forests. Vast numbers of fur-bearing animals (beaver, sable, fox, ermine) are caught. Seals are obtained from the Arctic and Caspian Seas. The sturgeon is found in all the larger rivers.

INHABITANTS.—Russia is very thinly peopled, considering its vast size, though the total number of its population is large. Including Finland and Poland, the population is estimated at 73,579,000, an average of 35 to the square mile.

Race.—More than five-sixths of the entire population belong to the *Sclavonic* race, but in the north-west are three millions of Finns, Lapps, and Samoides, and in the south-east nearly the same number of Tartars. Jews are numerous, especially in Lithuania.

Language.—The majority of the people speak the Russian language, of which there are three principal dialects—pure Russian being spoken only in the central provinces. Polish, Lettish, and the various Finno-Tartarian languages are also spoken.

INDUSTRY.—The vast majority of the people are engaged in *agriculture*, for Russia is principally a corn-growing country. The central and southwardly portions of its great plains, with the exception of the steppe-region, are annually covered with crops of the finest wheat. Rye and other grains, and also hemp and flax, are very largely grown. Vast numbers of cattle are reared on the steppes.

The metal works carried on within the valleys of the Ural display a high degree of manufacturing skill. But Russia is not, upon the whole, a manufacturing country. It has a great deal of foreign *commerce*, exporting corn, hemp, tallow, hides, and bristles; with timber, potash, and other productions of its vast forests.

In 1879 the total value of the *imports* was estimated at £125,000,000, and the *exports* at £121,500,000. Much of the inland trade is carried on at fairs. At the annual fair of Nijni Novgorod goods to the value of about eight millions sterling are sold. The commercial navy of Russia consists of nearly 3000 vessels. About half the foreign trade of the empire is centred at St. Petersburg, and is mainly carried on with Great Britain¹ and Germany.

PORTS.—The chief ports are St. Petersburg, Riga, and Revel, on the Baltic; Archangel, on the White Sea; Astrakhan, on the Caspian; and Odessa on the Black Sea.

INTERNAL COMMUNICATION.—Excellent highroads, but few good cross-roads; extensive inland water communication by *navigable rivers and canals*; and about 15,000 miles of *railway*.

The rivers of Russia intersect the country in every direction and are connected together by an extensive network of canals. Thus goods from St. Petersburg are rapidly and easily conveyed by water to Archangel, or Astrakhan, or to the Black Sea ports, and *vice versa*. In winter the frozen rivers and lakes are admirably adapted for sleigh travelling.

GOVERNMENT.—Russia is an absolute monarchy, the sovereign bearing the title of *Czar* or *Emperor*. Previous to the year 1861 the great mass of the people were serfs, in a social condition but little superior to absolute slavery, and rated as the property of their owners, like so many head of cattle. Serfdom, however, was

¹ The *exports* from Russia to the United Kingdom (1879) were valued at £15,876,585, and the *imports* of British home produce into Russia at £7,644,629.

abolished by the emperor (Alexander II.),¹ and great improvement in the general condition of the Russian peasantry has ensued. An immense standing army is maintained in Russia, and everything is regulated according to the rules of military discipline.²

Finance.—In 1879 the *Revenue* and *Expenditure* amounted to nearly £90,000,000 each, and the entire *Public Debt* to £350,000,000.

Army and Navy.—In 1879 the regular army and reserves numbered 768,000 men on the peace footing, and 1,213,000 on the war footing, exclusive of the irregular troops, mainly composed of Don Cossacks. In the same year the *navy* consisted of 223 vessels, carrying 561 guns.

EDUCATION.—Very backward, except in Finland. In 1870 only 11 per cent. of the recruits for the army could read and write.³ Numerous military, naval, and mining schools, endowed by Government; six universities—viz., at Dorpat, Moscow, Petersburg, Kazan, Kiev, and Kharkov.

RELIGION.—In religion the majority of the people of Russia are followers of the *Greek Church*. There are about 7,250,000 Roman Catholics, and the Protestants, Jews, and Mohammedans each number about 2,500,000.

DIVISIONS and TOWNS.—Russia is divided, for administrative purposes, into governments and districts, which are generally grouped under eight great divisions.⁴ Four of the Russian governments are called, from their situation, *Baltic Provinces*. *Finland* is divided into eight districts. Nineteen governments, lying within the central portion of the empire, are distinguished as *Great Russia*; four (in the south-west, towards the river Dnieper) as *Little Russia*. Eight governments are known as *West Russia*, and ten as *Poland*; these embrace territories which formerly belonged to the kingdom of Poland. Six of the governments are known as *South Russia*, and ten as *East Russia*. The principal towns in each of the great divisions of Russia are shown in the following table:—

Divisions.	Chief Towns.	Divisions.	Chief Towns.
Baltic Provinces,	{ St. Petersburg. Cronstadt. Riga. Revel.	Little Russia, .	Kiev, Poltava.
Finland, . .	{ Helsingfors, Abo. Moscow, Toula.	West Russia, .	Wilna, Minsk.
Great Russia,	{ Nijni-Novgorod. Smolensk. Archangel.	Poland, . .	Warsaw, Kalisch.
		South Russia, {	Odessa, Nikolaev, Sevastopol, Kertch.
		East Russia, {	Kazan, Saratov, Astrakhan, Perm.

Great Russia (Muscovy) gained its independence under Joan Baselowitz in 1479; *East Russia* (Kazan) was annexed in 1550–80; *Little Russia* (Ukraine) in 1686; the *Baltic Provinces* in 1700–10; *South Russia* (New Russia) in 1791;

¹ Assassinated March 13, 1881.

² It is probable that the present Czar will initiate important reforms in the government of the empire.

³ In 1860 only 2 out of every 100 recruits were able to read or write.

⁴ Caucasasia, which is politically divided into *Cis-Caucasia* and *Trans-Caucasia*, is by some geographers treated as part of European Russia, but it properly belongs to Asia, and is therefore described under "Asiatic Russia."

West Russia (Polish Russia) in 1795; the Archduchy of *Finland* was formerly a part of the Swedish monarchy, and only became attached to Russia in 1809. *Poland* was long a distinct and powerful kingdom. The territory to which the title of "Poland" is now given is, since 1831, a Russian province, and embraces only a small part of the country formerly known by that name, the other portions having been annexed by Prussia and Austria. By the Treaty of Berlin, July 13, 1878, which followed the Russo-Turkish war, the district of *Bessarabia*, east of the Pruth, was restored to Russia.

ST. PETERSBURG, the capital of the Russian Empire, stands beside the mouths of the river Neva, at the head of the Gulf of Finland. It has 668,000 inhabitants, and thus ranks third among European capitals in order of population. St. Petersburg is a splendid city, of modern origin, having been founded by Peter the Great in the year 1702.

Cronstadt, the port and naval arsenal of St. Petersburg, is on an island in the Gulf of Finland, a few miles to the west of the capital. **Riga** (population, 102,000), at the outlet of the river Dvina into the Gulf of Riga (an arm of the Baltic), is an important seaport, one of the chief seats of Russian commerce. **Revel** (population, 29,000), at the entrance of the Gulf of Finland, is also a port of some note. **Helsingfors** (population, 25,000), on the north side of the gulf, is the provincial capital of Finland. It is defended by the fortified works of Sveaborg, which occupy several small islands in front of the port.

The ancient city of **MOSCOW** (with 612,000 inhabitants), in the heart of Russia, was long the capital of the empire, and is still the favourite object of Russian regard. Moscow stands on the river Moskva, an affluent of the Oka, which latter river joins the Volga. About sixty miles west of Moscow is the village of *Borodino*, the scene of a bloody engagement between the French and Russian armies in 1812.

Nijni-Novgorod (population, 42,000), at the junction of the Oka and Volga, is an important seat of inland trade, distinguished by its great annual fair, the gathering-place of traders from nearly every nation of Europe and Asia. **Archangel** (population, 24,800), near the mouth of the northern Dvina, is the chief port for the commerce of the White Sea; but its harbour is only free from ice during three months of each year. **Kiev** (population, 127,000), on the river Dnieper, is an ancient city, the seat of considerable trade. **Warsaw** (population, 297,000), on the river Vistula, was the capital of the Polish monarchy, and is still a large city, though fallen from its former greatness. **Odessa** (population, 184,000), on the Black Sea, is the chief seaport of southern Russia, and has a vast trade, chiefly in the export of corn. **Nikolaev** (population, 68,000), farther to the east, is on the river Boug (above its junction with the Dnieper); it has become the chief naval station of Russia in the Black Sea since the destruction of Sevastopol by the united armies of France and England in 1855. **Sevastopol**, now a small and comparatively unimportant place, is on the western shore of the Crimea. **Kertch** is a seaport on the east coast of the Crimea, besides the strait which leads into the Sea of Azov. **Kazan** (population, 79,000), in eastern Russia, is a large city to the east of the Volga, and is the centre of the trade with the Siberian provinces. **Saratov** (population, 93,000) is on the west bank of that river. **Astrakhan** (population, 43,000), the chief port for the commerce of the Caspian, is on the Volga, a few miles above its mouth.

QUESTIONS ON RUSSIA.

1. Name the boundaries of Russia, pointing to them on the map.
2. In point of size, what proportion does Russia bear to England and Wales? What are its dimensions from north to south?
3. What seas adjoin the coast-line of Russia? In what way are they connected with the ocean?
4. What are the general features of Russia as to its surface?
5. Describe briefly the principal mountains of Russia.
6. Name the principal rivers of Russia, with the seas into which they flow.
7. Mention the chief lakes.
8. By what is the climate of Russia distinguished?
9. What articles of utility are derived from the extensive forests of Russia?
10. In what part of Russia is mineral produce abundant?
11. To what number does the total population of Russia amount?
12. What industrial pursuits employ the greater number of the Russian population?
13. What articles of commercial produce does Russia export?
14. What form of government has Russia, and what is the national religion?
15. Into how many governments is Russia divided?
16. Name the eight great divisions of Russia.
17. On what river does the capital of Russia stand? Who founded it?
18. What city was the ancient capital of the Russian Empire? On what river is it?
19. In what part of Russia are Hel-singfors, Nijni-Novgorod, Kiev, Odessa, Nikolaev, and Sevastopol?
20. On what rivers are Riga, Kiev, Warsaw, Archangel, and Astrakhan?

TURKEY IN EUROPE.

TURKEY is a large country in south-eastern Europe, and was formerly much more extensive than at present. Before 1878 it included the, at present, independent states of Roumania north, and Servia south, of the Danube. The present kingdom of Greece was a province of the Turkish Empire from the commencement of the 16th century to 1830.

BOUNDARIES.—Turkey in Europe is bounded on the *north* by Austria, Servia, and Roumania; on the *west* by the Adriatic and Mediterranean Seas; on the *south* by Greece, the waters of the Archipelago, and the sea of Marmora; on the *east* by the Black Sea.

EXTENT.—The *area* of European Turkey is estimated at 128,000 square miles, or more than twice the size of England and Wales.

COASTS.—The total length of *coast-line* is estimated at 1500 miles, equal to an average of 1 mile of coast to every 66 square miles of area. The principal features are:—

1. **CAVES.**—Kalagria and Emineh on the east, Monte Santo on the south, and Linguetta on the west.
2. **INLETS.**—Gulf of Bourgas on the east; gulfs of Contessa, Monte Santo, Kassandra, Salonica, and Volo, on the south.
3. **STRAITS.**—The Strait of Constantinople, leading from the Sea of Marmora to the Black Sea; the Dardanelles, connecting the *Ægean Sea* with the Sea of Marmora; and the Strait of Otranto, joining the *Ionian and Adriatic Seas*.

ISLANDS.—The islands of the Archipelago belong for the most part to the kingdom of Greece; but those that lie near its northern and eastern shores are Turkish. The large island of Candia or Crete, to the south of the Archipelago, belongs to Turkey.

Crete or Candia is, after Cyprus, the largest island of the Mediterranean, and has an area of about 3000 square miles. Though mountainous, its soil is naturally fertile; the valleys producing olive-oil, wine, oranges, &c., while the hill-sides are covered with magnificent forests, in which numbers of wolves, wild boars, and other animals are found. The inhabitants number upwards of 200,000, nearly all Greeks. The chief towns are *Candia* (the capital), *Retima*, and *Khania*.¹

Off the south coast of Roumelia is the island of *Thaso*, 85 square miles in area. The other Turkish islands of the Archipelago geographically belong to, and are described under, Asiatic Turkey.

MOUNTAINS.—Turkey is generally mountainous, though containing some level districts of large extent. Of mountains the chief are the Balkan, the Dinaric Alps, and the chain of Pindus.

1. The *Balkan² Mountains* stretch across the centre of Turkey, in the direction of east and west. The average height of the main range is from 2000 to 3000 feet, but it attains in *Kaja Balkan*, west of the now famous Shipka Pass, an elevation of 5900 feet. From the principal chain four minor ranges are given off—one to the north, extending to the bank of the Danube at the "Iron Gate;" another south-east, between the Kara-su and the Maritza, known as the *Despoto Dag³* or *Rhodope Mountains*; a third, the *Little Balkans*, extending from the main range, fifty miles west of Bourgas, to the neighbourhood of Constantinople; while the fourth trends due west to the lofty group of the *Sharra Dag³*, the culminating point of which is upwards of 8000 feet above the sea.

2. The *Dinaric Alps* (which are an outlying portion of the great mountain-system of the Alps) extend along the shores of the Adriatic. They become united to the western extremity of the Balkan system in the group of the *Sharra Dag³*, already mentioned.

3. The chain of *Mount Pindus* branches off to the south from the *Sharra Dag³*, and extends in that direction into Greece—forming a sort of backbone to the peninsular portion of Turkey, and dividing the waters of its eastern and western seas. *Mount Pindus*, between Albania and Thessaly, is 8950 feet high, but the famous *Mount Olympus* (the classic seat of the gods of Greek mythology), near the west shores of the Gulf of Salonica, attains an elevation of 9749 feet. South of Mount Olympus are *Mount Ossa* (Kissovo), 6407 feet, and *Mount Pelion* (Zagora), 5310 feet above the sea-level.

PLAINS.—Bulgaria, to the north of the Balkans, forms part of the large plain of the Lower Danube; south of the Balkans is the plain of Adrianople, drained by the Maritza. The plain of Thessaly lies east of the chain of Mount Pindus, and is drained by the Salembria.

RIVERS.—The principal rivers of European Turkey are the *Danube*, flowing into the Baltic; the *Maritza*, *Kara-su*, *Struma*, *Vardar*, and *Salambria*, flowing into the *Ægean Sea*; the *Arta* and *Kalamas*, flowing into the Ionian Sea; and the *Drin* and *Voyussa*, flowing into the Adriatic.

¹ The harbours of Kalos Limenas and Lutro on the south coast are the *Fair Havens* and *Phenice* of St. Paul's journey to Rome (*Acts* xxxiii. 8, 12).

² Balkan (Turkish), meaning "high ridge."

³ Dag³, mountain; *Despoto Dag³*, "monks' mountains."

1. The **Danube** is not only the most considerable river of Turkey, but also the only one that is permanently navigable, and forms for some distance its northern boundary. It enters Turkey a short distance above Widdin, and leaves it at Silistria, where it enters Roumania, and ultimately reaches the Black Sea. Its chief feeders below Belgrade are the *Morava*, which flows through Serbia; the *Aluta*, *Sereth*, and *Pruth*, in Roumania; and the *Isker*, in the province of Bulgaria.

2. The **Maritza** has a length of 300 miles and a basin of 17,500 square miles, and is navigable during the winter for small vessels as high as Adrianople, 106 miles from the sea.

LAKES.—The lakes are *Skutari*, drained by the Boyana; *Ochrida*, drained by the Drin; and *Ianina*, which has no visible outlet—all three situated on the western side of Mount Pindus, within the Adriatic and Mediterranean basins.

CLIMATE.—Most parts of Turkey have a warm and delightful climate—much warmer than that of England, as is the case with all the countries that border on the Mediterranean. But to the north of the Balkan the winters are severe.

PRODUCTIONS.—The productions of the vegetable kingdom are exceedingly rich and varied. Evergreen foliage distinguishes the southern and south-western slopes of Turkey. The *vine* grows luxuriantly to the south of the Balkan, and the *fig*, *olive*, and *mulberry* are abundant; the *orange* also thrives. *Corn* is grown abundantly in the provinces watered by the Danube. *Iron* and other minerals abound in the hilly tracts adjoining the Balkan chain, but they are only worked to a limited extent.

DIVISIONS.—By the Treaty of Berlin, 1878, *Bulgaria* and *East Roumelia* were formed into autonomous (self-governing) tributary principalities; *Bosnia* and *Herzegovina* were handed over to Austria, to be occupied and administered for an indefinite period; *Roumania*, *Servia*, and *Montenegro* became independent states, and acquired additional territory. European Turkey now (1881) consists of (1.) Turkey Proper, comprising the provinces still under the direct rule of the Porte; (2.) the self-governing tributary states of Bulgaria and Eastern Roumelia; and (3.) Bosnia and Herzegovina, occupied and administered by Austria.

I. TURKEY PROPER.

EXTENT.—Turkey Proper extends south of Eastern Roumelia, Servia, and Montenegro, and, exclusive of the cessions made under the Treaty of Berlin, has an area of 62,028 square miles. It is thus considerably larger than England and Wales.

The area of Turkey in Europe before the Treaty was estimated at 138,264 square miles. The cessions made under the Treaty were:—Bulgaria, 24,360 square miles; Eastern Roumelia, 13,500 square miles; Bosnia and Herzegovina, 28,125 square miles; Roumania, Servia, &c., 10,251 square miles. Total cessions, 76,236 square miles.

INHABITANTS.—Before the Russo-Turkish war of 1877–78, European Turkey contained 8,315,000 inhabitants, but at the end of 1879 the actual population was estimated at 4,275,000, of which less than 2,000,000 are Turks.

INDUSTRY.—Turkey is a badly-governed country, and the pursuits of industry are hence at a low ebb. Its great natural capabilities—in soil, climate, and vegetation—are for the most part neglected. In the northern districts large numbers of oxen and sheep are reared on the rich natural pastures. In the towns, the preparation of morocco leather is pursued with considerable skill. There are works in metal upon a scale of some magnitude in the larger towns. In Albania and the other mountain districts the people are chiefly shepherds.

Commerce.—*Fruits, olive-oil, wax, honey,* and other natural produce—with *wool, tobacco, morocco leather, and carpets* (the latter worked by the women of the nomad tribes who occupy portions of Asiatic Turkey)—form the exports of Turkey. The amount of its trade is considerable, and a large portion of it is carried on with Britain. The Greeks are the chief agents in this trade.

Before the Russo-Turkish war of 1877-78, the annual average value of the imports was estimated at £18,500,000, and of the exports at £10,000,000. At present the total value of the imports and exports is probably under £20,000,000. The trade with the United Kingdom averages £6,000,000.

INTERNAL COMMUNICATION.—Few of the wretchedly-constructed roads are practicable for carriages, and goods are transported mostly by pack animals. Previous to the year 1869 there were no railways, but at present there are about 800 miles open for traffic.

Postal communication is partially, and until a few years ago was entirely, kept up by Tartar couriers. In 1876 the Turkish Government established an international postal service, but the principal post-offices at Constantinople still belong to foreign powers. There are nearly 18,000 miles of telegraph lines in operation.

GOVERNMENT.—The government of Turkey is a despotic monarchy, in which the Sultan (as the sovereign is called) exercises an authority that is really absolute, though some attempts have recently been made to rule more constitutionally. The government of the various provinces is administered by pashas.

Finance.—The Revenue in 1878-79 amounted to £14,000,000, and the Expenditure, owing to the war with Russia, probably exceeded £50,000,000. The present revenue and expenditure are estimated at £12,000,000 and £16,000,000 respectively; and the Public Debt, foreign and internal, amounts to £260,000,000.

Army and Navy.—At the commencement of the war with Russia in 1877, the Nizam or standing army numbered 203,000 men, the reserves 284,000, and irregular troops 100,000. Since the war the regular army has been greatly reduced. The active army in 1880 consisted of 140,000 men, but in war time more than half a million men could be called out for service. The navy consists of 150 vessels (30 ironclads), manned by 20,000 sailors and 3000 marines.

RELIGION and EDUCATION.—The Turks themselves are Mohammedans, but the rest of the population of Turkey are members of the Greek Church. Public education, although encouraged, has not made much progress, and the limited instruction given in the public schools and colleges is based on the Koran.

DIVISIONS and TOWNS.—Turkey Proper is divided into *vilayets* or governments, which are again subdivided into *sanjaks* or provinces, and *kazas* or districts.

Divisions.	Vilayets.	Chief Towns.
1. Roumelia, . {	Constantinople, . . . Adrianople, . . . Salonica, . . .	Constantinople. Adrianople, Gallipoli. Salonica, Drama, Seres.
2. Albania, ¹ . {	Ianina, . . . Prisrend, . . .	Ianina, Prevesa. Prisrend, Divra.
3. The island of Candia or Crete, divided into the three provinces of Retima, Khania, and Candia.		

CONSTANTINOPLE (*population*, 700,000) is the capital of the Turkish Empire. It stands at the southern entrance of the channel of Constantinople—the Thracian Bosphorus of the ancients—in a commanding situation.

Adrianople (*population*, 100,000), the second city of Turkey, is on the banks of the river Maritza (or Hebrus), to the north-west of the capital. **Gallipoli** (*population*, 17,000) is on the northern shores of the Dardanelles (the Hellespont of ancient geography). **Salonica** (*population*, 70,000), anciently Thessalonica, is at the head of a gulf in the north-western corner of the Archipelago, and is a place of considerable trade.

II. BULGARIA.

The Principality of Bulgaria,² formed under Article 1 of the Treaty of Berlin 1878, extends from the Danube on the north, and Servia on the west, to the principal range of the Balkans on the south. The Black Sea forms its eastern boundary. Its *area* is estimated at 24,000 square miles,³ and its *population* at 1,859,000.⁴ The people, though of Finnish origin, speak the Servian language, and are nearly all members of the Greek Church.

1. The soil is generally fertile, and large quantities of wheat and other grain are grown and exported. Much attention is also paid to the rearing of cattle and sheep, and wool, tallow, butter, and hides are exported. *Iron* and *coal* are also found, but “nothing has been done to develop these valuable productions of nature.” The means of intercommunication are deficient; there are few good roads, and the only line of railway (140 miles in length) is that connecting Rustchuk, on the Danube, and Shumla with Varna.

2. Bulgaria is virtually independent, governed by a prince elected by the “National Assembly.” The sovereignty of the Porte is nominally acknowledged by the payment of an annual tribute. A certain portion of the public debt of the Turkish Empire has been taken over by the principality.

3. The chief towns are **Sofia**, the capital, on the northern slopes of the Balkans, with a *population* of 18,000; **Varna** (*population*, 16,000), the port on the Black Sea; **Tirnova**, the old capital of the Bulgarian kingdom; and the famous fortresses of **Widdin**, **Rustchuk**, **Shumla**, and **Silistria**, memorable in connection with the war between Russia and Turkey in 1877–78.

¹ The greater portion of Thessaly will shortly (May 1881) be ceded to Greece.

² Bulgaria formed an independent kingdom from the middle of the 7th to the middle of the 14th century, when it was annexed by the Hungarians, from whom it was wrested by the Turks in 1392. The mis-

government of Bulgaria was one of the principal causes of the Russo-Turkish war of 1877–78.

³ Nearly two and a half times the area of England and Wales.

⁴ An average of 77 persons per square mile.

III. EASTERN ROUMELIA.

The province of Eastern Roumelia, formed in 1878 in accordance with Article 13 of the Treaty of Berlin, has an *area* of 13,500 square miles,¹ and a *population* estimated, in 1880, at 817,000.² The soil is in parts extremely fertile, and on the south slopes of the Balkans are the chief rose-growing districts. The people are mainly Bulgarians, and are governed by a Prince appointed (1879) by the Sultan—the legislative power being vested in the Provincial Assembly, composed of 9 official members, 10 members nominated by the Prince, and 36 elected by the people. The supreme military and political authority is in the hands of the Sultan, and certain strategical positions may be occupied by the Turkish troops.

The chief towns are **Philippopolis** (the capital); **Kesanlik** and **Slivno**, the centres of the manufacture of attar of roses; **Bourgas** is the port. In the Balkans, on the north, is the now famous *Shipka Pass*. **Tatar Bazardjik**, in the west, is connected by rail with Adrianople, and thence with Constantinople.

IV. BOSNIA AND HERZEGOVINA.

Before the Russo-Turkish war of 1877-78 Bosnia and Herzegovina, in the north-west of the Balkan peninsula, formed part of the Turkish dominions. Article 23 of the Treaty of Berlin declared that these provinces "shall be occupied and administered by Austria-Hungary." Consequently both Bosnia and Herzegovina have been virtually annexed to, and are now treated as integral parts of, the Austrian Empire.³

QUESTIONS ON TURKEY IN EUROPE.

1. How is Turkey bounded?
2. What islands belong to Turkey?
3. What mountain-chains are within the limits of European Turkey?
4. Describe briefly the course of the river Danube, and name the principal streams by which it is joined.
5. What five rivers flow through Turkey into the Archipelago?
6. What kind of climate has Turkey? Name some of its vegetable productions.
7. What were the chief provisions of the Treaty of Berlin?
8. Give the area and boundaries of Turkey Proper.
9. Name its principal industries and productions.
10. Give in round numbers the population of Turkey in Europe before and after the war of 1877-78.
11. What form of government prevails in

Turkey, and how is the sovereign styled?

12. What is the religion of the Turks themselves, and what is that of the other inhabitants of Turkey?

13. How is Turkey divided for administrative purposes? Name the vilayets and chief towns of each.

14. Describe briefly the capital of Turkey.

15. What do you know of Adrianople, Gallipoli, and Salonica?

16. Which of the provinces are now semi-independent principalities?

17. What form of government prevails in Bulgaria and Eastern Roumelia?

18. Give particulars of the situation, productions, &c., of these two provinces.

19. Where are Bosnia and Herzegovina, and to what state do they now virtually belong?

¹ One-fourth the area of England and Wales.

² An average of only 60 persons to the square mile. In England the average

density of population is 463 per square mile.

³ For further particulars, see under "Austria," page 121.

INDEPENDENT STATES.

Bulgaria and Eastern Roumelia still nominally form part of European Turkey. Three other states, formerly tributary to the Porte, Serbia and Montenegro south, and Roumania north, of the Danube, are now entirely independent of the Porte.

I. MONTENEGRO.¹

This small state lies to the north-west of Turkey Proper, and has been virtually independent since the 17th century. By the Treaty of Berlin, not only was its absolute independence acknowledged and guaranteed, but several portions of the adjacent Turkish territories were added to it. The ceded districts comprise the port of *Antivari* (population, 8000), and the seaboard from lat. 42° to Spica, the fortified town of *Podgoritz*a (population, 6000), and part of *L. Scutari*. With these additions,² its area is only 3550 square miles,³ and the total population in 1879 was officially estimated at 308,740.

The country is entirely covered by irregular precipitous spurs of the Dinaric Alps, and intercommunication is exceedingly difficult, there being no navigable rivers, and scarcely any roads. Montenegro is remarkable only for the indomitable spirit and energy of its inhabitants, who have successfully maintained their independence for two centuries. The capital is *Cetinje* (population, 1400), where the Prince or Hospodar resides and the Senate meets.

II. SERVIA.

Servia includes the territory on either side of the Morava, and extends to the frontiers of Bulgaria on the east, and Bosnia on the west. The Danube forms the north boundary. Its area, including the districts annexed under the Treaty of Berlin, is 20,850 square miles, or rather less than half that of England and Wales.

NATURAL FEATURES.—Servia is decidedly mountainous, being traversed in all directions by spurs (generally well wooded) of the *Dinaric Alps* and *Balkans*. It is well watered by numerous tributaries of the Danube, which forms the natural boundary on the north. The largest river is the *Morava*, which flows almost through the centre of the country from south to north.

CLIMATE and PRODUCTIONS.—Servia being subject to extremes of heat and cold, its climate is variable. Although the soil is on the whole fertile, *agriculture* is but little attended to, scarcely one-tenth of the land being under cultivation, the rest serving as pastures for immense herds of swine, which form the principal article of export. Its *mineral productions* comprise gold, copper, zinc, lead, and iron. Grain, tobacco, silk, wine, and timber are also exported.

¹ Montenegro is the Italian name; the Turks call it *Kara-dagh*, and the natives *Zernagora*; but all the names signify "black-mountain," from the dark pine forests which cover the slopes of the mountains.

² The town and district of Dulcigno were

also added to Montenegro in November 1880, but only after prolonged negotiations and an actual "naval demonstration" by the Great Powers.

³ i.e., about one-sixteenth the area of England and Wales.

INHABITANTS.—Including that of the territory ceded by Turkey in 1878, the population is estimated at 1,670,000, nearly all of whom are Servians or Slavs.

GOVERNMENT.—The executive power is vested in the Prince; the legislative authority is exercised by the *Sorjet* or Senate, nominated by the Prince, and the *Skuptchina* or National Assembly, elected by the people.

Servia became autonomous on the conclusion of the war of 1815-20, but remained tributary to Turkey until 1877, when it proclaimed its independence, which was finally confirmed by Article 34 of the Treaty of Berlin, July 13, 1878. The *Revenue* in 1879-80 amounted to £782,000, and the *Expenditure* to £782,000. The *Public Debt* amounts to £1,400,000.

Army.—By a law passed in 1880 the Servian army is fixed at 150,000 men on the peace footing, and 200,000 on the war footing.

DIVISIONS and TOWNS.—Servia is divided into eighteen districts, which are named after the chief towns in each. The principal towns are Belgrade (*population*, 28,000), the capital, a strongly-fortified town on the junction of the Save with the Danube; **Semen-dria**, also fortified; **Kruschevatz**, the ancient capital of the Servian kingdom; and **Nissa**, the chief town of the new territory acquired under the "Treaty of Berlin."

III. ROUMANIA.

Roumania,¹ at present an entirely independent state, was formed in 1861 by the union of Moldavia and Wallachia, two provinces occupying the plain between the Carpathians and the Danube. Its actual area, deducting the 3000 square miles on the left bank of the Pruth ceded to Russia, and adding the Dobrudsha and other recently-acquired territory, is 48,307 square miles, about five-sixths that of England and Wales.

Bessarabia was taken from Russia by the Treaty of Paris (1856), but being restored in 1878, Roumania was compensated by the addition of the Sanjak of Tulcha, or the Dobrudsha, south of the Danube, and the islands forming the delta of that river.

NATURAL FEATURES.—The western districts verging on the Carpathians are hilly, but the greater part of the country is level, and well watered by the *Aluta*, *Arjish*, *Prahova*, *Sereth*, and other tributaries of the Danube.

CLIMATE and PRODUCTIONS.—The climate is strictly a continental one, *i.e.*, subject to extremes of heat and cold. The mountainous western part is well wooded, and the extensive plains are admirably suited for both pastoral and agricultural purposes. The productions comprise the various kinds of grain, and immense herds of cattle and sheep are reared. Various minerals are also abundant, but not much worked.

¹ Roumania, or *Romania*, the country of the *Romani*, *i.e.*, the descendants of the old Roman colonists and the native *Dacians*. Three-fourths of the words in the Romanian language are directly derived from the Latin.

INHABITANTS.—Before the Treaty of Berlin (1878) Roumania contained 5,073,000 inhabitants; the cession of Bessarabia reduced the number by about 140,000, but the addition of the Dobrudsha, &c., increased the total number to 5,290,000,¹ nearly a million of whom are Jews, Slavs, Germans, and other foreigners, the remainder being Roumanians.

Religion.—The entire population, with the exception of about a million Catholics, Protestants, and Jews, are members of the orthodox *Greek Church*.

INDUSTRY.—Cattle and sheep rearing and agriculture are the chief industries. Manufactures on a limited scale in a few of the larger towns.

Wheat, barley, maize, and other corn, timber, and wool, are largely exported; the imports are chiefly manufactured goods and colonial produce. In 1878 there were 814 miles of railway open for traffic, and 560 miles in course of construction.

GOVERNMENT.—Roumania has recently² been erected into a kingdom. The government is a limited monarchy, the king being assisted by an Executive Council and an elected Senate and Chamber of Deputies.

After the formation of the Principality in 1861, Roumania continued to pay an annual tribute to the Porte until 1877, when it proclaimed its entire independence, which was finally confirmed by the Treaty of Berlin, 1878. In 1880 the *Revenue* was estimated at £4,701,000, and the *Expenditure* at £4,689,000, and the *Public Debt* at £24,398,000. The *military forces* of Roumania consist of the "permanent army," numbering 20,000 men; the "territorial army," 46,000; the militia, national guard, and general levy, upwards of 100,000.

DIVISIONS and TOWNS.—Wallachia is divided into eighteen, and Moldavia into thirteen, districts, each under a prefect or governor. The chief towns are **Bucharest** (*population*, 221,000), the capital and seat of the government, with some important manufactures; **Jassy** (*population*, 90,000), the chief town of Moldavia; other towns are **Galatz** (*population*, 80,000), the principal port of the kingdom, **Braila**, and **Ismail**, two other important ports on the Danube.

QUESTIONS ON MONTENEGRO, SERBIA, AND ROUMANIA.

1. What three states became completely independent of the Porte in 1878?
2. Where is Montenegro? State what you know of the country and its inhabitants.
3. How is Serbia bounded? What is its present area?
4. Describe the physical character of Serbia, its climate and productions.
5. How is Serbia divided? Name the chief towns.
6. What is the present form of government? When did Serbia obtain (a) local self-government and (b) entire independence?
7. Where is Roumania, and what are its boundaries?
8. What is its area as fixed by the Treaty

of Berlin? Describe the particular territorial changes.

9. What part of the country is (a) mountainous, (b) level?

10. What is meant by a "continental" climate?

11. Name the principal industries and productions of Roumania.

12. What is the population, and show to what extent the Berlin Treaty affected the total number?

13. What is the present (1881) form of government? When did Roumania become (a) partly, and (b) fully, independent of Turkey?

14. Where are Bucharest, Jassy, Galatz, and Braila?

¹ An average of 109 persons to the square mile.

² On March 26, 1881, the Senate and

Chamber of Deputies unanimously passed a vote proclaiming Prince Charles king of Roumania.

GREECE.

GREECE¹ is a small country in the south of Europe, and consists of three well-marked divisions: "Northern Greece;" "Southern Greece" or the "Morea;"² and the adjacent islands, or "Insular Greece."

"Southern Greece" forms a peninsula which is nearly divided from the rest of the mainland by the Gulf of Corinth. The Isthmus of Corinth (only three miles across) unites this peninsula to Northern Greece.

BOUNDARIES.—Greece is bounded on the *north* by Turkey, on the *west* and *south* by the Mediterranean, on the *east* by the Ægean Sea.

EXTENT.—Including the Ionian Islands, the total *area* of the modern kingdom of Greece is nearly 20,000 square miles—about a third of the size of England and Wales.

The *greatest length*, from north to south, is 205 miles.

The *greatest breadth*, from east to west, is 165 miles.

In 1879 the actual area of Greece was officially estimated at 19,941 square miles, of which "Northern Greece" comprised 7529 square miles; "Southern Greece," 8263 square miles; and "Insular Greece," 4149 square miles.³

COASTS.—The mainland of Greece has the sea upon three sides, and its coasts are indented by a vast number of inlets. The peninsula of the Morea is subdivided and broken up by deep bays and gulfs into several smaller peninsulas. The total length of *coast-line* is upwards of 2000 miles, or rather more than 1 mile of coast to every 10 square miles of area.

Thirlwall remarks that "Greece is distinguished among European countries by the same character which distinguishes Europe itself from the other continents, viz., the great range of its coast compared with the extent of its surface; so that while in the latter respect it is considerably less than Portugal, in the former it exceeds the whole Pyrenean Peninsula."⁴

1. **CAVES.**—The two principal capes are *Cape Matapan*⁵ and *Cape Colonna*.⁶ Cape Matapan is the extreme south point of the Morea. Cape Colonna is the southward termination of the peninsula of Attica, in Northern Greece.

2. **INLETS.**—The Gulfs of Athens and Nauplia on the east, Kolokythia and Kalamata on the south, and Patras, Corinth or Lepanto, and Arta on the west.

3. **STRAITS.**—The principal straits are those between the islands of Negropont, Cerigo, and Corfu, and the mainland.

¹ Greece, or *Græcia*, so called by the Romans. The old Greek name, "Hellas," was not exclusively applied to Greece proper, but was also given to other countries inhabited by the Greeks or "Hellenes."

² Morea, Gr. a mulberry tree. Called by the old Greeks "Peloponnesus."

³ The "Treaty of Berlin" recommended the transfer of additional territory to Greece, but the Porte refused to accept the frontier adopted (June 20, 1880) by the representatives of the Great European Powers, and proposed to cede Larissa, Trikala, Turnova, and the

valley of the Salambria, in Thessaly, but no part of Epirus. The Greek government, having prepared for war, was not disposed to accede to the Turkish proposals; but upon the strong representations of the Great Powers, the new frontier was definitely accepted, and arrangements are now (May 1881) being made for the immediate transfer of the ceded territory.

⁴ History of Greece, chap. 1.

⁵ *Tanarum Promontorium*.

⁶ *Sunium Promontorium*.

ISLANDS.—A large portion of Greece consists of islands, naturally divisible into four groups, viz.—

1. *Eubœa* or *Negropont*,¹ more than 100 miles long, is the largest island of Greece. It is divided from the mainland by the channels of *Talanta* and *Egripo*, the former of which is only 50 yards wide in its narrowest part. To the north-east and south of it lie

2. The *Sporades*,² of which the principal are *Skyro*, *Skopelo*, *Kuluri*, *Egina*, and *Spezzia*.

3. The *Cyclades*³ are so called because they seem to encircle the sacred island of *Delos*. The principal islands are *Andros*, *Tenos*, *Naxia*, *Paros*, *Amorgo*, *Milo*, and *Santorin*.⁴

4. The *Ionian Islands* are situated to the west and south of Greece. They comprehend *Corfu*, *Pazo*, *Santa Maura*, *Ithaca*, *Cephalonia*, *Zante*, and *Cerigo*, with many smaller islets. These islands exhibit for the most part a rocky and even mountainous surface. They enjoy a delightful climate, and have a soil which (in some localities) is fertile and productive. The small species of vine which yields the Corinthian grape (the fruit of which reaches our own shores under the familiar name of *currants*) is their most characteristic article of produce. The olive also flourishes. The inhabitants of the Ionian Islands are of the Greek race. They number rather more than 250,000. The largest of the islands is *Cephalonia*; *Corfu* is second in size, and *Zante* third. *Corfu* and *Zante* are the most populous and industrious of the number.

The Ionian Islands, formerly a dependent state under the protection of Great Britain, are now incorporated with Greece, and form an integral portion of that kingdom. The town of *Corfu* (population, 15,400), on the island of that name, is the capital.

MOUNTAINS.—Every part of Greece is mountainous. The highest elevations reach upwards of 8000 feet above the sea.* Mount *St. Elias* (the ancient *Taygetus*), in the south of the *Morea*, is one of the most celebrated.

The mountains known to the ancients by the names of *Eta*, *Parnassus*, *Helicon*, *Cithæron*, with others that are famous in classic story, are within the limits of Northern Greece—that is, to the north of the Gulf of Corinth. Between Mount *Eta* and the sea lies the famous *Pass of Thermopylæ*.⁵

RIVERS.—Greece has no rivers of any magnitude. The small streams by which the country is watered, though bearing names that are famous in the records of past ages, are for the most part mere torrents.

The largest is the *Aspropotamo* (ancient *Achelous*), which rises in Mount *Pindus*. The largest river of the *Morea* is the *Rufa* (ancient *Alpheus*), which flows into the Bay of *Arcadia*.

Lakes.—There are numerous lakes, but none of any considerable size. The largest is *Lake Topolias*, in Northern Greece, which is drained into the Strait of *Talanta* by subterranean channels.

CLIMATE.—Greece has a warm and delightful climate, snow seldom lying on the lowlands. The mean annual temperature at Athens is 60° F., but in summer the temperature is frequently 100° F.

¹ A bridge connects the island with the mainland, whence the name *Negropont*, from *Egripo*, and *ponte*, a bridge.

² *Sporades*, Gr. *sporas*, scattered.

³ *Cyclades*, Gr. *kuklos*, a circle.

⁴ *Santorin* is the seat of volcanic fires, which are almost constantly burning.

⁵ *Thermopylæ*, Gr. *thermos*, hot, and *pule*, a gate; from the hot springs in the pass. Famous for its defence by 300 Spartans under Leonidas against Xerxes, B.C. 480.

PRODUCTIONS.—Though much of the surface of the country is occupied by sterile rock, yet the vegetation is richly abundant wherever sufficient soil can be found for its growth. The *vine* and the *olive*—the *orange*, *lemon*, *citron*, *fig*, and *mulberry*—are amongst its native fruits. The *cotton-plant* grows wild, as also does *madder*. The *honey* of Attica still preserves its ancient fame.

The various *marbles* and *building-stones* of Greece are of deserved celebrity. The island of Paros, in particular, yields the finest statuary marble. *Mineral springs* are very numerous, and many of the running streams are lost in subterranean chasms.

INHABITANTS.—In 1879 the *population* of the kingdom of Greece was officially estimated at 1,679,775.¹ The Greeks are quick, intelligent, and enterprising, and have made great progress since the successful insurrection of 1821–29, when they gained their independence.

Race and Language.—Three-fourths of the people are probably descended from the old *Greeks*, and their language, the *Romaic*, closely resembles the ancient Greek tongue. Besides the Greeks proper there are about 250,000 Albanians or Arnauts, who are the most intelligent and enterprising of the population.

Religion and Education.—The *Greek Church* represents the established form of *religion*, and to it the great majority of the inhabitants belong. Public *education* is in a backward state, but is nevertheless improving. The compulsory system was adopted by the government in 1834.²

INDUSTRY.—The industry of Greece is chiefly pastoral, but a considerable amount of trade is carried on from the various ports. Currants³ and other fruits, olive-oil, honey, tobacco, and cotton are the exportable produce of the country.

Only one-sixth of the land is actually under cultivation; and although agriculture is in a very backward state, the produce is considerable. Large quantities of various dried fruits are exported, but the corn grown is not sufficient for home consumption.

Commerce.—The commerce of the kingdom is considerable, the average value of the *imports* being £4,500,000, and the *exports* about £3,000,000. The staple article of export is currants, of which immense quantities are grown along the shores of the Gulf of Corinth and on the Ionian Islands.

Internal communication.—Defective, there being few practicable *roads*, and the only *railway* is a line 7 miles in length, connecting Athens with the port of Piræus. Consequently most of the trade is carried on by sea.

GOVERNMENT.—The modern kingdom of Greece was established in 1832, after a prolonged struggle on the part of the Greeks to free themselves from Turkish rule, to which they had during a long prior period been subject. It forms a limited and hereditary monarchy. The legislative power is vested in an elected Chamber of Deputies called the *Boulé*.

In 1880 the *Revenue* was estimated at £1,679,000, and the *Expenditure* at £1,880,000; *Public Debt*, £15,360,000. The *army* consists, in peace, of about 14,000 men, but in war time of 200,000 men, and the *navy* of 14 vessels, manned by about 700 men.

¹ An average of 8½ to the square mile, i.e., less than a fifth of the density of population in England (46½ per square mile).

² That the education laws, however, have never been properly enforced, is evident from the high proportion of illiterate adults, and the comparatively small number of pupils

attending school. According to the census of 1879, only 33 per cent. of the men and 7 per cent. of the women were able to read and write. In 55 districts not a single woman was able to read or write!

³ Currants, so called from the city of Corinth.

DIVISIONS and TOWNS.—The country is physically divided into Northern Greece (the part of the Greek mainland which is to the north of the Gulf of Corinth), the Morea, and the Islands.

Divisions.	Chief Towns.
Northern Greece, ...	Athens, Livadia, Thiva, Lepanto.
The Morea, ...	Nauplia, Corinth, Patras.
The Islands, ...	Syra, Egripo or Negropont, Corfu.

Politically, the kingdom is divided into 13 *Nomarchies* or governments, which are further subdivided into 59 *Eparchies* or provinces.

ATHENS is the capital of modern Greece. It is on the western side of the peninsula of Attica, about five miles distant from the harbour of the Piræus, which forms its port. Athens is a city of very moderate size (46,000 inhabitants, or, including the Piræus, 52,000), but greatly surpasses in this respect any other place in Greece. The interest belonging to localities in this classic land depends upon their association with the events of a past age. The sites of *Marathon* and *Salamis* are not far distant from the capital—the former twenty miles to the north-east. *Salamis* is represented by the modern Kuluri, an island in the Gulf of Athens.

Thiva (*population*, 5200), a small town to the north-west of Athens, represents the Boeotian *Thebes*. Farther west, a short distance from the shore of the Gulf of Corinth, and at the foot of Parnassus, is the village of **Kastri**, the ancient *Delphi*, the oracle of Apollo, and the fabled haunt of the Muses. Nearly due north of Kastri, on the shore of the strait which flows between the mainland and the island of Negropont, is *Thermopylae*.

Nauplia (*population*, 8500) and **Patras** (*population*, 26,000), both situated upon the coasts of the Morea, are, next to the capital, the most important seats of Greek commerce. Patras lies near the entrance of the Gulf of Corinth. Nauplia is at the head of a gulf upon the eastern side of the peninsula, in the vicinity of the ancient *Argos*. **Corinth**, near the isthmus to which its name is given, is now small and unimportant; as also is **Sparta**, in the southerly portion of the Morea.

Syra (*population*, 25,000), on the island of that name, is commercially the most important among the towns of insular Greece. The little island of *Delos*, the fabled birthplace of Apollo and Artemis, is only a few miles east of Syra (between the two larger islands of Rhenea and Mikoni).

Corfu (*population*, 15,400) is the capital of the Ionian Islands.

QUESTIONS ON GREECE.

1. Where is Greece? How is it bounded?
2. What peninsula forms part of Greece?
3. Name the two most important capes of Greece, and point them out on the map.
4. Name some of the Greek islands.
5. Describe briefly the natural features and productions of the Ionian Islands?
6. What mountains, well known in classical antiquity, are within the limits of modern Greece?
7. What kind of climate and soil has Greece? Name some of the fruits that are native to its soil.
8. To what pursuits is the industry of Greece chiefly devoted? What articles of produce does it export?
9. What is the population and form of government, and how is the country divided (a) physically and (b) politically?
10. What city forms the capital of Greece?
11. In what parts of Greece are the following sites?—*Marathon*, *Salamis*, *Delphi*, *Thermopylae*, *Sparta*, and *Argos*?
12. What two places are—next to Athens—the chief seats of Greek commerce?
13. Where is Syra? What island, famous in classic story, is within the neighbouring portion of the Archipelago?

ITALY.

ITALY¹ is a large country of southern Europe. The greater portion of it forms a peninsula which advances far into the Mediterranean.

BOUNDARIES.—Italy is bounded on the *north* by Austria and Switzerland; on the *west* by France; on the *south-west* and *south* by the Mediterranean Sea; on the *east* by the Adriatic Sea.

Italy is divided from France, Switzerland, and the Tyrol by the magnificent ranges of the Alps, and from the maritime provinces of Austria, Western Turkey, and Greece by the Adriatic Sea.

In shape Italy is likened to a boot, the two smaller peninsulas into which it divides in the south forming respectively the toe and the heel.

EXTENT.—The total area of Italy, including the islands, is estimated at 114,296 square miles, or nearly twice that of England and Wales.

The *greatest length*, from north-west to south-east, is about 700 miles.

The *breadth* varies from 350 miles in the north to between 80 and 140 miles in the centre, and less than 20 miles near its southern extremity.

COASTS.—Although regular and unbroken, except on the south, the coast-line of Italy is very extensive, and includes a great number of good harbours. The total length of the coast-line is upwards of 3300 miles, or about 1 mile of coast to every 35 square miles of area. Several parts of the Italian coast, such as the Bay of Naples and the Gulf of Genoa, are famous for their scenery.

The principal capes, inlets, and straits are :—

1. **CAPIES.**—The principal are Spartivento and Di Leuca. Cape Spartivento is the most southerly point of the Italian mainland; Cape Di Leuca is the extreme south-east point.

2. **INLETS.**—The Adriatic Sea (the northerly part of which forms the Gulf of Venice), the Gulf of Taranto, the Bay of Naples, and the Gulf of Genoa, are all of them arms of the Mediterranean.

3. **STRAITS.**—The Strait of Otrante, at the entrance of the Adriatic; the Strait of Messina, between Italy and the island of Sicily; and the Strait of Bonifacio, between the islands of Sardinia and Corisca. In the Strait of Messina are the once-dreaded whirlpool *Charybdis* and the rock *Scylla*.

ISLANDS.—The three large Italian islands are Sicily, Sardinia, and Corisca—the last named of which belongs politically to France. The smaller islands are Malta, Gozo, Comino, the Lipari Islands, Elba, Caprera, Ischia, Capri, Pantellaria, and several others of less note lying near the western coasts of the peninsula. The Maltese Islands belong to Great Britain.

1. **Sicily**, the largest island in the Mediterranean, is about 180 miles long and 120 miles broad, and has an area of 11,200 square miles. Its shape is triangular, and its surface is extremely uneven. The principal mountain-range runs across the northern part of the island and gives off a lateral ridge which terminates in Cape Passaro. The famous volcano, *Mount Etna*, is a detached mass rising from the north-east corner of the plain of Catania

¹ Italy, the country of the *Itali*, an ancient tribe who occupied the southern parts of the peninsula.

to the height of 10,874 feet above the sea. The climate is warm and delightful; and the soil, in the lower plains and valleys, is very fertile, producing abundance of fruits and grain. Various minerals and metals are also found, and marble, sulphur, &c., are largely exported.

2. **Sardinia**, the second largest island in the Mediterranean, has an area of 9363 square miles. Its surface is mountainous; the highest point of the Monti del Gennargentu reaches the height of 6132 feet. Its extremely fertile plains and valleys are well watered by numerous rivers, and its natural productions are varied and valuable. The capital, *Cagliari*, an important port on the south coast, and *Sassari*, the chief town in the northern part of the island, have each about 30,000 inhabitants.

3. **Malta**, with the two smaller adjacent islands of Gozo and Comino, has belonged to England since the year 1800. Malta has nearly 150,000 inhabitants. Its chief town is *Valetta*, a busy seat of trade, and an important naval station.¹

4. The **Lipari Isles**, off the north coast of Sicily, are of volcanic origin, and still contain the two active volcanoes of Stromboli and Vulcano.

5. **Ischia**, a small island at the entrance of the Gulf of Naples, was recently (March 4, 1881) the scene of a most destructive earthquake. Over 200 lives were lost, and hundreds of houses and other buildings destroyed.

6. **Capri** is famous as being the place where the Roman emperor, Tiberius, passed the last ten years of his life, and also as being the favourite retreat of Augustus; **Elba** as the place of Napoleon's exile; and **Caprera** as the home of Garibaldi, the liberator of Italy.

MOUNTAINS.—A large portion of Italy is mountainous. The principal mountains are the *Alps*, which encircle the north of Italy, forming its frontier on the side of France, Switzerland, and Germany, and the *Apennines*, which run through the length of the Italian peninsula, branching off from the Alps near the head of the Gulf of Genoa.

1. The **Alps** have been already described under Switzerland. All the higher portions of the Alps are covered with perpetual snow; but the glacier-region is chiefly upon their northern declivities, beyond the Italian limits. *Mont Blanc*, 15,781 feet, the highest of the Alps, is on the border-line of Italy and France. *Mont Rosa*, 15,158 feet, is on that of Italy and Switzerland.

2. The **Apennines** are much less elevated than the Alps, and occupy about two-thirds of peninsular Italy. The highest points are *Monte Cimone*, 6975 feet, in the Northern Apennines; *Monte Corno* or *Gran Sasso d'Italia*, "the Great Rock of Italy," 9521 feet, in the Central or Neapolitan Apennines; and *Monte Amara*, in the Southern Apennines, 9000 feet.

VOLCANOES.—*Mount Vesuvius* (3932 feet), the only active volcano upon the mainland of Europe, is on the west side of Italy, near the shores of the Bay of Naples. *Mount Etna*, on the island of Sicily, and also an active volcano, is of much more considerable height, reaching 10,874 feet above the sea. *Stromboli*, one of the Lipari Islands, is a volcano in constant activity.

In the first known eruption of Vesuvius (A.D. 69) the cities of Herculaneum and Pompeii were so completely covered by lava and ashes that their very site long remained unknown. Mount Etna is the largest and loftiest volcano in Europe, and since the year 476 has been in eruption about sixty times. The whole of the south of Italy is especially subject to volcanic disturbances. In the earthquake of 1783 over 300 towns and villages were destroyed, and in that of 1857 over 10,000 persons perished. The recent earthquake at Ischia has been already noticed.

¹ For full accounts of Malta and other British possessions, see Fauntorpe's "British Colonies," of which a new and revised edition has been recently published.

PLAINS.—The largest is the *Plain of Lombardy*, which includes the north-east part of Italy between the Alps and the Apennines. It is watered by the rivers Po and Adige, with their numerous tributaries, and is one of the most fertile regions of Europe. Less extensive plains border the eastern and western coasts of the Italian peninsula between the Apennines and the sea.

RIVERS.—The chief rivers of Italy are the Tagliamento, Brenta, Po, and Adige, flowing into the Adriatic; and the Arno and Tiber, flowing into the Mediterranean. With a few exceptions the rivers of Italy are of comparatively little importance in a merely geographical sense, though of great historical fame. In Italy, as in Greece and other lands, many localities which in themselves claim little regard, acquire interest from their association with the great events of a former age.¹

1. The Po rises on Mont Viso, and has a total length of nearly 400 miles, of which 280 miles are navigable. Its chief tributaries are the *Ticino*, from Lake Maggiore; the *Adda*, from Lake Como; the *Oglio*, from Lake Iseo; and the *Mincio*, from Lake Garda. The immense quantities of debris brought down from the mountains by the Po and its tributaries have added much land to its delta, and has raised its bed so much that its surface is actually higher than the general level of the surrounding districts,² which are protected from inundation by vast embankments.

2. The Adige rises in the Rhetian Alps, and flows into the Gulf of Venice after a course of 280 miles.

3. The Arno rises in the Apennines, and has a course of 75 miles through one of the loveliest and most renowned parts of Italy. The upper Arno is connected by a canal with

4. The Tiber, which is, historically, the most famous river in Europe. It flows by Rome, once the "mistress of the world," and has a total course of 230 miles.

LAKES.—The principal Italian lakes are *Maggiore* (152 square miles), *Lugano*, *Como* (66 square miles), and *Garda* (183 square miles), situated among the southern valleys of the Alps; with *Perugia*, *Bolsena*, and *Bracciano*, in the middle portion of the peninsula. *Albano* and *Nemi* are smaller lakes, a few miles south of Rome.

Lake Maggiore is one of the prettiest of the Alpine lakes. Off its western shores are the beautiful Borromean islands. Como lies at an elevation of 684 feet above the sea, and is by far the most picturesque and sublime. The scenery of Garda and Lugano is fine, but inferior to that of Como and Maggiore. The lakes of central Italy generally occupy the craters of old volcanoes, and consequently are circular or oval in shape. They are smaller than the Alpine lakes, but two of them, Bolsena and Albano, are hardly less beautiful.

Lake Maggiore is drained by the river Ticino, Lugano by the Tresa, Como by the Adda, and Garda by the Mincio. Perugia and Albano are drained by artificial canals.

¹ The stream of the Rubicon—in ancient times the limit between Roman Italy and the province of Cisalpine Gaul—is an example of this. It is believed to correspond to a little torrent now called the Fiumecino—one of a vast number of mountain torrents that descend from the eastern slope of the Apennines. The Fiumecino enters the Adriatic in lat. 44° 11'.

² In its lower course the surface of the Po is several feet above the general level of the country through which it flows. At Ferrara the streets are actually 30 feet below the surface of the river. At its mouth the formation of land has been such that the old Roman *seaport* of *Adria* (whence the name *Adriatic* Sea) is now many miles inland.

CLIMATE.—The climate of Italy is warm, as is the case with all the countries that border upon the Mediterranean. It is also, for the most part, dry and healthy. But in particular parts of Italy the air is very unhealthy, especially at some seasons of the year. This is the case in the low coast district of Tuscany, and in certain parts of the Roman territory, to the south and west of the city of Rome.¹

PRODUCTIONS.—The *vegetation* of Italy is rich and luxuriant, in a degree which greatly surpasses that of countries that lie beneath a more northern sky. A rich evergreen foliage clothes the sides of the hills, and the plains are covered with the vine, the olive, the fig, and the mulberry, besides yielding abundant crops of the finest wheat and other corn. In *mineral produce* Italy is chiefly distinguished for the sulphur supplied by Sicily, and the iron worked in the island of Elba. Marbles and building-stones of the finest quality abound throughout the country.

Among the *wild animals*, the lynx, chamois, and wolf are still found in the Alps, and the crested porcupine and wild boar in the south. The *fisheries* around the coast are valuable. The finest marble is found near Carrara in the Apennines.

INHABITANTS.—On January 1, 1877, Italy was estimated to contain 27,769,000 inhabitants, equivalent to about 230 to the square mile.² It is thus one of the most populous countries of Europe, estimated with reference to the comparative number of inhabitants to extent of surface.

Race and Language.—Although the modern inhabitants of Italy are, in appearance, manners, and language, a distinct nation, yet they have descended from numerous and widely-different races, such as the Ligurians, Umbrians, Etruscans, Greeks, Romans, Goths, Franks, Longobards, &c. The Italian language is derived from the Latin. Of the various dialects the Tuscan only is pure.³

INDUSTRY.—The industry of Italy is both varied and considerable. It is, on the whole, an agricultural rather than a manufacturing country. Yet there are extensive manufactures in some parts of Italy, and the amount of its foreign commerce is very large.

Wheat, olive-oil, silk, straw-plait, and wines are among the productions of Italian industry. The culture of the vine, the olive, and the mulberry is pursued, on a scale of greater or less magnitude, throughout the country. Lombardy is especially distinguished for the mulberry, which is reared for the purpose of supplying the food of the silkworm. Tuscany is more particularly noted for its olive-oil, and also for its straw hats and plait. The north of Italy—Lombardy, Piedmont,⁴ and the Genoese provinces—constitute its most manufacturing portion. The silks and velvets of Turin and Genoa rival those of France.

Commerce.—The total *imports* were, in 1879, valued at £50,480,000, of which £4,983,000 were British goods; and the total *exports* at £44,038,000, of which £3,233,000 were sent to Great Britain. The *mercantile navy* of Italy consisted, in 1879, of upwards of 10,700 sailing, and 150 steam, vessels, manned by 150,000 men.

FORTS.—Genoa, Venice, Leghorn, Civita Vecchia, Naples, Ancona, Messina, Palermo, and Brindisi.

¹ The *malaria*, emanating from these peatland marshes, and the *sirocco*, a hot stifling wind from Africa, are the great drawbacks to the climate of Italy.

² In England the average is 453

³ Dante and Boccaccio were Tuscans.

⁴ Piedmont, from the French *pie*, foot, and *mont*, a mountain.

INTERNAL COMMUNICATION.—Good roads in Lombardy and Sardinia, but in Central and South Italy they are very defective, the best being the old Roman highways. The completion of the great Alpine tunnels facilitates communication with Central Europe. There are about 5000 miles of railway open for traffic in the kingdom, and nearly 4000 miles in course of construction.

By the *Mont Cenis Railway* the railway system of Italy communicates with that of France, and by the *Brenner Pass* with that of Austria. The completion, in February 1880, of the *St. Gothard Tunnel* opens up direct railway communication between Germany and Italy via Switzerland.

GOVERNMENT.—The kingdom of Italy is a constitutional monarchy, the legislative power being shared between the sovereign and two chambers. The upper one, the Senate, is composed of members of the royal family and eminent men recommended by the king; and the lower one, the Chamber of Deputies, is composed of 508 members elected by the people.

Finance.—Revenue, in 1880, £56,559,000; Expenditure, £55,712,000; Public Debt, £390,000,000.

Army and Navy.—Military service is compulsory. In 1880 the total number of men under arms was 220,000, but in war time about 1,200,000 can be put in the field. The navy consisted, in 1880, of 73 war vessels, carrying 478 guns, manned by about 15,000 men. Two of the ironclads carry four 100-ton guns each, and are said to be the most powerful men-of-war yet made. Two other similar vessels are now (1881) being constructed. The chief naval port is Spezia.

EDUCATION.—Until recently the lower classes of Italy were entirely illiterate, and even now 65 per cent. of the adult population are unable to read or write. Elementary education, however, is being rapidly extended, and public government schools are now found in all parts of the kingdom. Higher education is well provided for, there being no less than twenty-two universities, eleven of which were in existence previous to 1450.

The upper classes of Italy are, and always have been, highly educated, and in the Middle Ages the arts and literature were especially cultivated. Among the great men whom Italy has produced we may note Raphael, Michael Angelo, Dante, and Canova. The fine arts are still highly esteemed, and there are important schools of painting, sculpture, &c., at Rome, Florence, Bologna, and other towns.

RELIGION.—In religion 99½ per cent. of the Italians are *Roman Catholics*; the rest being *Protestants* (60,000) and *Jews* (35,000).

The power and number of the Catholic clergy have been greatly reduced since 1850, but in 1869 it was stated that the average proportion of priests was seven per thousand of the population.

DIVISIONS.—Previous to the year 1860 Italy was divided politically into several states—nine in number. These were the kingdom of Sardinia, the kingdom of Naples and Sicily, the Lombardo-Venetian kingdom (part of the Austrian Empire), the States of the Church, the Grand-duchy of Tuscany, the Duchy of Parma, the Duchy of Modena, the Republic of San Marino, and the Principality of Monaco. The three first-named of these were the most considerable; the two last-mentioned were insignificant in point of size.

The public events of the years 1859-60 resulted in the union of the greatly larger portion of Italy under a single sovereignty. Lombardy, by aid of the arms of France, was transferred from the dominion of Austria to the constitutional rule of the King of Sardinia. The insurgent populations of Tuscany, Parma, Modena, and the larger part of the then Papal States, expelled their deservedly unpopular rulers, and added themselves to the subjects of the Sardinian monarchy. The Neapolitan provinces (including the whole fertile south of Italy), with the neighbouring island of Sicily, were roused to action by the patriot soldier Garibaldi, and, with the acceptance of their proffered union, the title of King of Sardinia was exchanged for that of "King of Italy."

The kingdom of Italy thus constituted included six-sevenths of the entire country. Two portions of Italy, however, were still wanting to its completeness, viz., the Venetian and the Roman territories. The year 1866 witnessed the enforced relinquishment by Austria of her dominion over Venice, which, with Lombardy, is now Italian in a political as well as a physical sense. Rome, with a small adjacent territory, a fraction of the former "States of the Church," remained under the temporal sovereignty of the Pope until 1870, when the losses sustained by France in the war which she had provoked with Germany led to the final withdrawal of the French army (by which alone the fiction of Papal dominion had been sustained), and to the union of all Italy under a single ruler.

Savoy and Nice, previously part of the Sardinian monarchy, were in 1860 transferred to the rule of France, and the insignificant territory of Monaco falls, in virtue of the change, within the French border. The little town of San Marino, with a small adjacent tract (situated between the Apennines and the Adriatic), is allowed to retain its nominal independence.

The kingdom of Italy is divided into sixteen territorial divisions, which are subdivided into sixty-nine provinces. The territorial divisions are as follow :—

- I. **Central Italy.**—The Roman Territory, Tuscany, The Marches, and Umbria.
- II. **Northern Italy.**—Piedmont, Liguria, Lombardy, Venetia, and Emilia.
- III. **Southern Italy.**—Campania, Abruzzo and Molise, Apulia, Basilicata, and Calabria.
- IV. **Insular Italy.**—Sicily and Sardinia.

I. CENTRAL ITALY.

Divisions.	Provinces ¹ and Chief Towns.
ROMAN TERRITORY, ...	Rome.
TUSCANY, ...	Florence, Arezzo, Grosseto, Leghorn, Lucca, Carrara.
THE MARCHES, ...	Pisa, Siena.
UMBRIA, ...	Ancona, Ascoli, Ploena, Marcerata, Pesaro.
	Perugia.

ROME (*population*, 245,000), now the capital of Italy (in a temporal as well as in a spiritual sense), stands on the banks of the Tiber, sixteen miles above its entrance into the Mediterranean. By far the larger portion of the city is on the left bank of the river; that portion, however, which contains the Cathedral of St. Peter and the Vatican (residence of the Pope) is on the right bank. This latter, which is

¹ The provinces are named after their chief towns, hence the names are not repeated in *this* and the following tables.

distinguished as the "Leonine City,"¹ is reserved for the purposes of the Papal court.

The area included within modern Rome is marked by the walls of the ancient city, which are still standing, but great portions of the included space is a mere wilderness of ruin. The Coliseum, which is beyond the populated portion of the city, is the most imposing amongst the many magnificent works of ancient art which belong to Rome.

Civita Vecchia, forty miles to the north-west of Rome, serves as the port of that city.

TUSCANY includes **Florence** (*population*, 167,000), which during the years 1864-70 was the capital of the kingdom of Italy. Florence is a beautiful city, situated on the banks of the river Arno, famous for its rich collections of works of art, and as the birthplace of numerous great men, amongst them Dante, Galileo, and Michael Angelo.

Leghorn (*population*, 97,000), or Livorno, on the coast of Tuscany, is one of the chief seats of Italian commerce. **Pisa**, on the river Arno, a few miles above its mouth, has a great name in mediæval history, and is famed for its leaning tower. The island of Elba lies off the coast of Tuscany. **Ancona** is a flourishing port on the Adriatic, one of the chief seats of Italian commerce.

The province of **UMBRIA**, lying west of Ancona, is an inland region.

Perugia (*population*, 49,000), its chief city, is near the right bank of the Tiber, within the upper portion of that river's course.

II. NORTHERN ITALY.

Divisions.	Provinces and Chief Towns.
PIEDMONT , ...	Turin, Alessandria, Cuneo, Novara.
LIGURIA , ...	Genoa, Porto Maurizio.
LOMBARDY , ...	Milan, Bergamo, Brescia, Como, Cremona, Mantua, Pavia, Sondrio.
VENETIA , ...	Venice, Verona, Vicenza, Udine, Treviso, Rovigo, Padua, Belluno.
EMILIA , ...	Bologna, Parma, Ravenna, Ferrara, Forlì, Modena, Piacenza, Reggio.

TURIN (*population*, 213,000), the chief city of Piedmont (and, prior to 1864, the capital of a time of the Italian kingdom), stands on the left bank of the river Po.

Alessandria (*population*, 57,000), a strongly-fortified town, to the south-east of Turin, is on the river Tanaro, an affluent of the Po. **Marengo**, the scene of Napoleon's victory over the Austrians in 1800, is near Alessandria. **Genoa** (*population*, 130,000), one of the most important among the great cities of Italy, in former times the rival of Venice in commerce and dominion, lies on the Mediterranean coast, at the head of the gulf called by its name. **Spezzia** (*population*, 24,000) is an important seaport and arsenal, to the south-east of Genoa.

¹ From Leo X., who filled the Papal throne in the early part of the 16th century, and by whom the completion of St. Peter's, with other public works, was accomplished.

MILAN (*population, 199,000*), in the centre of the Lombard plain, and the former capital of Austrian Italy, is noted for its magnificent cathedral and its marble palaces. It stands beside the river Olona, one of the many affluents of the Po.

Pavia (*population, 30,000*), on the river Ticino, near its junction with the Po, is to the south-west of Milan. Numerous large cities, many of them famous in the records of past ages, as well as possessed of present importance, lie within this part of Italy or within the adjoining Venetian provinces—amongst them *Bergamo, Brescia, Cremona, Mantua, Verona*, and many others.

VENICE (*population, 129,000*) stands on the shore of the Adriatic, in the midst of lagoons, in a situation well fitted for commanding, as it did in former ages, the commerce of the neighbouring waters. Canals divide its different quarters, but the city itself is now accessible by the railway, which, crossing the lagoons, connects it with Milan and other places in Northern Italy.¹

Verona (*population, 67,000*) is to the west of Venice, on the river Adige, and is an important fortress, as well as a great commercial city. **Padua** and **Vicenza** lie between Venice and Verona. **Mantua**, the birthplace of Virgil, is on the river Mincio, which, issuing from the Lago di Garda, joins the Po.

EMILIA comprehends the territory of the Romagna, which, prior to 1859, formed part of the Papal dominions, together with the former Duchies of Parma and Modena. **BOLOGNA** (*population, 116,000*), the chief city of this part of Italy, lies in the plain which stretches between the Apennines and the course of the Po.

Ferrara is near the right bank of the Po. **Parma** and **Modena** are also situated within the plain between the Apennines and the Po—the former on the banks of a river called by its name.

III. SOUTHERN ITALY.

Divisions.	Provinces and Chief Towns.
CAMPANIA.	Naples, Salerno, Caserta, Benevento, Avellino.
ABRUZZO AND MOLISE.	Aquila, Campobasso, Chieti, Terramo.
APULIA.	Foggia, Bari, Lecce.
BASILICATA.	Potenza.
CALABRIA.	Reggio (di Calabria), Cosenza, Catanzaro.

NAPLES (*population, 448,000*), the capital of the former kingdom of Naples and Sicily, is the largest city of Italy. It lies on the shore of the beautiful Bay of Naples, only a few miles distant from the foot of Mount Vesuvius. The disinterred city of Pompeii, buried eighteen centuries since, under the ashes ejected from the mountain, is beside the shore of the bay.

¹ The plains of Northern Italy, like those of the Low Countries, have been the frequent battlefield of nations, and abound in localities of historic fame. *Marengo, Montebello, Lodi*, and *Arcole* are among the

places distinguished in the earlier campaigns of Napoleon I. *Palestro, Magenta*, and *Solferino* have a like repute in connection with the operations of Napoleon III., in the brief campaign of 1859.

Few of the other cities of south Italy are of any considerable size. Among the more noteworthy are Foggia, Bari, Salerno, Gaeta, Capua, Tarento (the ancient Tarentum), and Brindisi (ancient Brundisium). **Gaeta** and **Salerno** are on the Mediterranean coast; **Bari** and **Brindisi**¹ on the Adriatic shore; and **Taranto** at the head of the gulf called by its name. **Foggia** and **Capua** are inland.

IV. INSULAR ITALY.

Islands.	Provinces and Chief Towns.
SICILY, ...	{ Palermo, Messina, Catania, Siracusa, Trapani, Girgenti, Caltanissetta. Cagliari, Sassari.
SARDINIA, ...	

PALERMO (*population*, 219,000), the largest city of Sicily, is on the north coast of the island. **Messina** (*population*, 112,000) is at its eastern extremity, beside the strait which bears its name.

Of the other towns of Sicily, **Catania** lies at the foot of Mount Etna, on the east coast; **Siracusa** (the ancient Syracuse) is on the same coast, to the southward; **Trapani** and **Marsala** are seaports at the western extremity of the island.

SARDINIA is neither as populous nor as advanced as the other provinces of Italy.

Cagliari (*population*, 33,000), the chief city of Sardinia, lies at the head of a bay near the southern extremity of the island. **Sassari**, a thriving town in the north-west, has nearly the same number of inhabitants. Both Cagliari and Sassari are university towns.

QUESTIONS ON ITALY.

- How is Italy bounded? What are its dimensions?
- Name the gulfs, bays, and straits which belong to the Italian coasts.
- Where are Cape Spartivento, Cape Di Leuca, the Lipari Islands, Elba, and Malta? Point to each on the map.
- To what nation does Malta belong? What is its chief town called?
- What mountains belong to Italy? Which among them are active volcanoes, and where are they situated?
- Describe briefly the chief rivers of Italy.
- Enumerate the principal lakes. Which of the number belong to the Alpine region? Which to Central Italy?
- What kind of climate has Italy? What parts of the country exhibit an exception to its general attributes in this regard?
- Mention some of the chief productions of Italy in the vegetable and mineral kingdoms.
- For what articles of industrial produce is Italy chiefly noted? Which portion of the country is especially distinguished for its silk?
- What are the means of intercommunication?
- Under what form of government is Italy in the present day?
- Give a few particulars relative to (a) education and (b) religion.
- Into what states was Italy formerly divided? Point out their places on the map.
- Name the chief towns, respectively, of Piedmont, Sardinia, Tuscany, and Emilia.
- What city forms the capital of the kingdom of Italy, and how is it situated?
- Point to the following upon the map:—Venice, Genoa, Spezia, Leghorn, Civita Vecchia, and Ancona.
- On what rivers are Pavia, Verona, Mantua, Turin, Florence, Pisa, and Rome?
- Where are the provinces of the Romagna and Umbria? What are the names of their chief cities?
- In what parts of Italy are Bologna, Ravenna, Ferrara, San Marino, Taranto, and Brindisi?
- In what parts of Italy are Gaeta, Salerno, Messina, Catania, Siracusa, and Marsala?
- What cities of Italy are particularly distinguished for their works of art and their remains of antiquity?

¹ Brindisi is an important packet station on the direct route to India via the Suez Canal and the Red Sea.

SPAIN.

SPAIN is an extensive country in the south-west of Europe. It includes the greater part of a peninsula which lies between the Mediterranean Sea, the Atlantic Ocean, and the Bay of Biscay. The western and smaller portion of this peninsula forms the kingdom of Portugal.

BOUNDARIES.—Spain is bounded on the *north* by France and the Bay of Biscay ; on the *west* by the Atlantic Ocean and the kingdom of Portugal ; on the *south-west* by the Atlantic ; on the *south* and *east* by the Mediterranean Sea.

EXTENT.—In point of size Spain is above three times larger than England and Wales, and nearly as large as France—its area, including the Canary and Balearic Isles, being 195,775 square miles.

A straight line from Cape Tarifa, on the south, to the mouth of the river Bidassoa, on the French frontier, measures 550 miles. The distance between the extreme westerly point, Cape Finisterre, and the most easterly, Cape Creuse, is 640 miles.

COASTS.—The coast-line of Spain is 1317 miles in length, of which 605 miles are formed by the Atlantic and 712 miles by the Mediterranean. It is, however, much less varied than the coasts of Italy or Greece, and the Spanish peninsula has a more solid shape than belongs to either of those countries. The external contour of the land is less indented, and its central parts are consequently farther removed from the sea than is the case with either the Italian or the Grecian peninsulas. The *Strait of Gibraltar*,¹ which connects the Atlantic with the Mediterranean, washes the extreme southern coast of Spain.

CAPES.—The principal capes are *Ortegal*, *Finisterre*, *Tarifa*, *Trafalgar*, *Europa Point*, *Gata*, *Palos*, and *Creuse*.

Capes Ortegal and Finisterre² are both upon the north-west coast of Spain, on the side of the Atlantic. **Cape Tarifa** is on the north side of the Strait of Gibraltar, and is the most southwardly point of the European continent ; **Cape Trafalgar** is a short distance to the north-west of Cape Tarifa, on the Atlantic coast ; **Europa Point** is to the east of Cape Tarifa ; **Cape Creuse** is on the Mediterranean coast, at the eastern extremity of the Pyrenees.

ISLANDS.—The *Balearic Islands*,³ in the Mediterranean, and the *Canaries*,⁴ in the Atlantic Ocean off the coast of Africa, belong to Spain. Both the Balearic and Canary Isles are politically considered part of the home country, and form two of the modern provinces into which the kingdom is divided.

1. The **Balearic Islands** are five in number, viz., Majorca, Minorca, *Iviza*, *Formentera*, and *Cabrera*. Majorca has an area of 1360 square miles, and Minorca, 260 square miles. The former is hilly, but the latter is, for the most part, level. All the islands are generally fertile, and produce corn and fruit. The chief towns are *Palma*, the capital, *Iviza*, and *Mahon*.

2. The **Canary Islands** are situated in the Atlantic Ocean, about 60 miles off

¹ Gibraltar, *Jebel Tarik*, Tarik's mountain. Tarik, one of the Moorish chiefs, built a fortress on the rock, hence its name.

² Finisterre, Lat. *finis*, the end, and *terra*, land. *Q'*, our Land's End.

³ Balearic, Gr. *ballo*, I throw ; the natives were formerly famous for their skill in "slinging."

⁴ Canaries, dog islands, Lat. *canis*, a dog.

the west coast of Africa. The largest islands are Tenerife and Gran Canaria. On the north-east side of the latter is *Gran Palmas*, the capital of the group. The Canaries are mountainous and volcanic, and culminate in the volcano *Pico de Teide* in Tenerife, 12,185 feet above the sea-level. The last eruption took place in 1798.

MOUNTAINS.—Spain is crossed by several mountain-chains, which stretch through the country in the direction of east and west. These are the Pyrenees, the Cantabrian Mountains, the Mountains of Castile, the Mountains of Toledo, the Sierra¹ Morena, and the Sierra Nevada.

1. The **Pyrenees** are on the border of France and Spain. They have an average elevation of 8000 feet, but a score of summits rise 2000 feet above this. The highest point is *Pic de Nethou* or *Maladetta*, 11,421 feet.

2. The **Cantabrian Mountains** extend westward from the Pyrenees along the shores of the Bay of Biscay, and terminate in Cape Finisterre.

3. The **Sierra Nevada** are in the south of Spain, near the Mediterranean coast. The culminating point is *Mulhacen*, which attains an elevation of 11,151 feet, and is the highest summit in the peninsula.

4. The chains of the **Castilian Mountains**, the **Mountains of Toledo**, and the **Sierra Morena** are in the interior of Spain. Their direction is best marked out by observing on the map the different river basins which they divide. Thus the mountains of Castile separate the basins of the Douro and the Tagus; the mountains of Toledo lie between the Tagus and the Guadiana, and the Sierra Morena between the Guadiana and the Guadalquivir.

5. The interior of Spain, from the Cantabrian Mountains to the chain of the Sierra Morena, forms a high tableland, which has an elevation of 2000 feet above the sea. Many parts of this tableland have an arid surface.

RIVERS.—The rivers of the Spanish peninsula have the same general direction as its mountain-chains, that is, east and west. They are the *Minho*, *Douro*, *Tagus*, *Guadiana*, and *Guadalquivir*, all of which flow west and discharge into the Atlantic; with the *Ebro*, *Xucar*, and *Segura*, which have eastwardly courses and enter the Mediterranean.

1. The **Douro**² drains north-central Spain, and has a course of 447 miles, only 75 of which (within Portugal) are navigable. Its basin (39,000 square miles in area) is bounded on the north by the Asturian Pyrenees, and on the south by the Sierra Guadarema.

2. The **Tagus** (540 miles long) is the longest river of the peninsula; 190 miles of its lower course is in Portugal. It drains that portion of the central tableland that lies between the Castilian Sierras and the mountains of Toledo. A part of its lower course only is navigable, and its estuary, which forms a fine harbour, varies from 2 to 7 miles in width.

3. The **Guadiana**, at a distance of 10 miles from its source, disappears, and for 14 miles flows underground, re-emerging in the two small lakes called *Los Ojos de Guadiana*. This river drains the tract lying between the mountains of Toledo and the Sierra Morena, but is only navigable for the last 40 miles of its course.

4. The **Guadalquivir**³ drains the plain between the Sierra Morena and Sierra Nevada, and is navigable below Cordova. Total length 364 miles.

5. The **Ebro** (540 miles long) drains north-eastern Spain. Its current is rapid and its navigation consequently difficult.

¹ *Sierra*, usually supposed to be derived from the Lat. *serra*, saw, in allusion to the notched or saw-like appearance of the crests of the ridges so named. But it is more probable that the term is connected with, if

not directly derived from, the Arabic *serra*, meaning waste land.

² Douro, cf. Welsh, *dwr*, water.

³ Guadalquivir, Arabic, *wady-el-keber*, th "great river."

CLIMATE.—The climate of Spain exhibits great varieties. The north is temperate; the middle parts are liable to great extremes of heat and cold—parched in summer by intense heat, and piercingly cold in winter; the south and south-east are hot, like the countries of southern Europe in general.

The extremes of temperature which belong to central Spain result from its elevated and exposed character. Madrid, which stands at an elevation of 2000 feet above the sea, is at once among the hottest and the coldest localities in Europe. In many parts of the interior plateau the rains are scanty and irregular.

PRODUCTIONS.—The natural productions of Spain are varied and valuable, but the deficiency of means of communication has hitherto hindered the development of its vegetable and mineral wealth.

1. The domestic animals include *sheep* (merino), *goats*, *mules*, and *camels*. Among the wild animals the *wolf*, *bear*, and *chamois* are found in the Pyrenees, the *wild bull* in Andalusia, and the *ape* on the rock of Gibraltar.

2. The vegetation is equally various as the climate. In the north, upon the shores of the Bay of Biscay, the fruits common to the south of England flourish. In the south and south-east, along the Mediterranean coasts, the foliage is evergreen, and the fruits are such as belong to southern lands. The *orange*, *lemon*, *citron*, and *fig* are here abundant; the *sugar-cane* thrives, and the rich foliage of the *banana* and other tropical fruits is seen beside the groves of *myrtle*, *oleander*, and *Indian fig*.

3. The mineral wealth of Spain is very great. The *quicksilver* mines of Almaden (on the north slope of the Sierra Morena) are among the richest in the world. The *lead* mines are also of great value. *Silver*, *iron*, *copper*, *zinc*, and *tin* occur in various parts of Spain, and valuable *marbles* and *building-stones* abound.

INHABITANTS.—Spain is one of the least populous among European countries. In 1877 the kingdom, including the Balearic and Canary Islands and the “Presidios” (Teutan, Ceuta) in North Africa, had a population of 16,625,860, a smaller number in proportion to size than that of many other countries which are inferior in natural wealth, being on an average only 85 persons to the square mile.

Race and Language.—The Spaniards are the descendants of the old Celtic Iberians, largely intermingled however with Phœnician, Roman, Gothic, and Moorish elements. The Spanish language is of Latin origin, and was at one time much more like the Portuguese than at present. The Basques of the north-west are the descendants of the aboriginal Iberians, and still speak the old Celtic language.

INDUSTRY.—The pursuits of industry are not generally flourishing in Spain, which country exhibits, in nearly every regard, a great decline from its condition at a former period. *Agriculture* is less an object of national pursuit than the rearing of sheep, immense numbers of which are bred upon the extensive pasture-grounds of the interior. The *silk manufacture* has flourished of late at Valencia and other places on the Mediterranean coasts. Some *woollen* and *linen* fabrics are also made, and *leather* is extensively prepared. *Spain*, however, is not generally a manufacturing country.

Commerce.—The chief articles of produce which Spain exchanges for the manufactures of other lands are *wines, fruits* (raisins, oranges, figs, &c.), *wool, salt, barilla, quicksilver, lead, and cobalt*; with *leather, olive-oil, and cork-wood*. The foreign trade carried on both with France and England is considerable. The sherry wines so largely consumed in the latter country are the produce of the south-west of Spain, in the vicinity of Cadiz.

The value of the trade in 1878 was estimated at £33,163,000 (imports, £15,910,000; exports, £17,253,000). The mercantile navy at present consists of about 3000 vessels, of which only 230 are steamers. The principal *ports* are Barcelona, Cadiz, Seville, Valencia, and Malaga.

INTERNAL COMMUNICATION.—The numerous mountain-chains render communication between the different parts of the country naturally difficult, and the *roads* are worse than those of any other European country. Nearly 4000 miles of *railway*, however, are open for traffic, and over 1000 miles in course of construction.

GOVERNMENT.—The present government of Spain is monarchical in form, but the political condition of the country was, until recently, unsettled. The supreme legislative power is vested in the king and the *Cortes*, composed of the "Senate," the members of which are nominated, or are senators by right, and the "Congress," elected by the people. Spain has declined, in nearly every respect, from the more flourishing condition which it formerly bore; but considerable improvements, social and political, have been made within a recent period.

Finance.—No accounts of the actual revenue and expenditure of the kingdom have been issued in recent years, but in 1879-80 the *Revenue* was estimated at £31,139,000, and the *Expenditure* at £32,263,000. The *Public Debt*, a portion of which does not bear interest, amounted on January 1, 1880, to £430,367,000, exclusive of about £10,000,000 incurred by the war in Cuba.

Army and Navy.—In 1880 the *army* numbered 100,000 men on the peace footing. The *navy* consists of 130 war vessels, of which 11 are ironclads.

EDUCATION.—Until recently the mass of the people were totally illiterate, and even now probably 75 per cent. can neither read nor write. Higher education is provided for in 58 public colleges and 10 universities. A vast progress in education has been made since it was taken out of the hands of the clergy in 1808, and its control transferred to the government.

The annual expenditure by the government for public education amounts to about £250,000. Compare this with the annual grants to primary schools in Great Britain, which in 1880 amounted to £2,468,077.

RELIGION.—The Spanish people, with the exception of 60,000 Protestants and Jews, are uniformly followers of the Church of Rome. By the constitution of 1876 the Protestants are allowed to meet privately, but are forbidden to make any public announcements.

DIVISIONS and TOWNS.—The most recent division of Spain is into forty-nine provinces. But the older division into thirteen provinces—some of them formerly separate kingdoms—is more generally followed; and (as in the like case of the earlier divisions of France) the names of these provinces are inseparably mixed up with the historic records of the country.

The thirteen older provinces of Spain, with the chief towns in each, are as follow :—

Provinces.	Towns.	Provinces.	Towns.
New Castile, .	Madrid, Toledo, Ciudad-Real.	Murcia, . .	Murcia, Cartagena.
Old Castile, .	Burgos, Santander.	Valencia, .	Valencia, Alicant.
Leon, . . .	Valladolid, Salamanca, Ciudad-Rodrigo.	Catalonia, .	Barcelona, Tarragona.
Estremadura,	Badajos.	Aragon, . .	Saragossa.
Andalusia, .	Seville, Malaga, Granada, Cordova, Cadiz, Xeres, San Lucar.	Navarre, . .	Pamplona.
		Biscay, . .	Bilbao, St. Sebastian.
		Asturias, .	Oviedo.
		Galicia, . .	Corunna, Santiago, Ferrol, Vigo.

MADRID (*population*, 475,000), the capital of Spain, lies in the centre of the peninsula, beside the stream of the Manzanares, a tributary of the Tagus, in the midst of an arid plain, which is upwards of 2000 feet above the level of the sea. The royal palace of the Escorial, built by Philip II., is to the north-west of the capital, at the foot of the mountains of Castile.

Toledo (*population*, 15,000), an ancient city to the south-west of Madrid, is on the Tagus. **Talavera**, also on the Tagus, lower down its stream, is famous for the victory gained in 1809 by the British over the French army.

Burgos (*population*, 10,000), the capital of Old Castile, is on the Arlanzon, one of the small tributaries of the Douro. **Santander** is a port on the Bay of Biscay.

Valladolid (*population*, 50,000), the chief city of Leon, and the former capital of the Spanish monarchy, is within the valley of the Douro, at the junction of the two smaller affluents of that river. **Salamanca**, once famous for its university, is on the river Tormes, which joins the Douro. **Ciudad-Rodrigo** is to the south-west, near the Portuguese frontier. **Badajos**, the chief city and fortress of Estremadura, is on the Guadiana, and closely adjoins the border-line between Spain and Portugal.

ANDALUSIA, the southwardly division of Spain, includes a greater number of large cities than any other portion of the kingdom. It was here that the Moors longest maintained their ground against the advancing tide of Christian warfare and conquest. Cordova, Seville, Granada, and Jaen, among the cities of Andalusia, were formerly the capitals of Moorish kingdoms; and the architectural glories of the Alhambra yet tell of the splendours amidst which the Moorish kings of Granada maintained their court.

Seville (*population*, 150,000), now chiefly noted for its extensive trade in oranges, stands beside the river Guadalquivir. At the mouth of that stream is **San Lucar**, the port whence (in 1519) Magellan sailed on the first voyage of circumnavigation round the globe. **Palos**, a small port to the westward, at the mouth of the little river Tinto, is yet more noteworthy in the annals of discovery. Columbus sailed thence, in 1492, on the great voyage in which he discovered the New World.

Cadiz (*population*, 72,000), one of the chief seaports of Spain, is at the north extremity of an island which immediately adjoins the Spanish coast. The town of **Xeres** (*population*, 34,000), whence the name of sherry is derived, is in the midst of the wine district, to the north-east of Cadiz. The name of Cape Trafalgar, to the south-east of Cadiz, recalls the memory of Nelson's great victory in 1805.

Cordova (*population*, 45,000), greatly decayed from its former splen-

dour, is on the Guadalquivir, in the middle portion of its course. **Granada** (*population*, 101,000) stands in a beautiful plain at the northern foot of the Sierra Nevada, beside the little stream of the Darro, which falls into the Xenil, one of the chief affluents of the Guadalquivir. **Malaga** is a flourishing port on the southern coast.

The town of **Murcia** (*population*, 109,000) is on the river Segura, on the eastern side of the kingdom. **Cartagena** is on the coast of the same province. **Alicant**, also on the Mediterranean coast, is to the northward. **Valencia** (*population*, 146,000), still farther north, is a short distance inland; it has flourishing silk manufactures and extensive trade.

Barcelona (*population*, 252,000), situated on the coast of Catalonia, commands the Mediterranean trade of Spain, and is the second city of the kingdom in amount of population. **Saragossa** (*population*, 82,000), the chief city of Aragon, on the river Ebro, is noteworthy for its memorable sieges in 1808-9, during the Peninsular war. **Pamplona**, in the Navarre, is a strong fortress, not far distant from the Pyrenees. **St. Sebastian**, a strongly fortified port on the Bay of Biscay, near the French border, was stormed by the British in 1813, after a memorable siege.

Santiago, the chief city of Galicia, like many other of the cities of Spain, has greatly decayed from its former importance. **Corunna** and **Ferrol**, on the coast of this province, are at the opposite extremities of an extensive bay; but **Vigo**, on a fine bay farther south, has of late outstripped them in commercial importance.

COLONIES.—The present colonial possessions of Spain are but a small fragment of those which she formerly owned. They comprehend, besides the *Canary Islands* (now regarded as an integral portion of the kingdom), the islands of *Cuba* and *Porto Rico*, in the West Indies; the *Philippine Islands*, in the East Indies; and the *Ladrone* or *Marianne Islands*, in the Pacific Ocean. **Ceuta**, on the African coast, opposite Gibraltar, also belongs to Spain, with a few other small stations on the same line of coast, farther to the east.

The fortress of Ceuta stands at the foot of a high rock, which rivals that of Gibraltar in point of natural strength. The distance between the two is sixteen miles. The rocks of Gibraltar and Ceuta (the *Calpe* and *Abyla* of classic geography) were the "Pillars of Hercules" of the ancients.

GIBRALTAR, in the extreme south of Spain, is a possession of the British crown. It was captured by an English squadron in 1704, and has ever since been retained in British possession.

The town of **Gibraltar** occupies the western declivity and base of a lofty rock, which advances a length of four miles into the sea, and terminates to the southward in Europa Point. A narrow and sandy isthmus connects this rock with the mainland of Spain. The natural strength of Gibraltar is increased by extensive fortifications, and a numerous garrison is maintained there. The position of Gibraltar, at the entrance of the Mediterranean, renders it of great importance as a naval station. *Population* about 25,000, exclusive of the garrison of between 5000 and 6000 men.

ANDORRA, a small republic in the eastern Pyrenees, has an *area* of about 150 square miles, and a *population* of 10,000.

The independence of this little state (now under the protection of France) was granted by the Emperor Charlemagne as an acknowledgment of the services rendered by its inhabitants during the wars with the Moors.

PORTUGAL.

PORTUGAL¹ is a small country in the south-west of Europe. It lies on the western side of the Spanish peninsula, and is thus the most westerly portion of continental Europe.

BOUNDARIES.—Portugal is bounded on the *north* and the *east* by Spain; upon the *south* and the *west* by the Atlantic Ocean.

The frontier-line towards Spain is mostly artificial, the only natural boundaries being portions of the courses of the Minho on the north, and the Douro, Tagus, and Guadiana² on the east.

EXTENT.—Portugal has an area of 36,510 square miles, or nearly three-fifths that of England and Wales, and less than one-fifth the size of Spain.

The *greatest length*, from north to south, is 360 miles. The *mean breadth*, from east to west, is 100 miles. Madeira³ and the Azores,⁴ which together have an area of 1283 square miles, also belong to Portugal. Its *total area* is therefore 37,793 square miles.

COASTS.—The coast-line of Portugal belongs wholly to the Atlantic, and measures about 500 miles, equivalent to 1 mile of coast to every 73 square miles of area. With the exception of the Bays of Lisbon and Setubal, the Portuguese coast is remarkably regular and unbroken, and, with one exception, deficient in good harbours.

1. **CAVES.**—The principal are *Cape Roca*⁵ and *Cape St. Vincent*. Cape Roca is the most westerly point of the European continent; Cape St. Vincent is its south-west point. Both are high and rocky, and form the seaward extremities of the Sierra⁶ d'Estrella and Sierra Monchique (or Malhao) respectively.

2. **INLETS.**—It includes two fine bays, the *Bay of Lisbon* (a magnificent natural harbour formed by the estuary of the Tagus), and the *Bay of Setubal*. The latter is lined by vast salt marshes, beyond which stretches the extensive plain of Estremadura.

MOUNTAINS.—Portugal is, physically, a continuation of Spain. Its mountains consist of portions of the long chains which cross the Spanish peninsula from east to west, and terminate in the latter direction on the shores of the Atlantic.

The highest elevations of Portugal are found in the Sierras situated between the Douro and the Tagus, of which the principal is the *Sierra d'Estrella* (7524 feet above the sea), a portion of the long chain which stretches across the peninsula from north-east to south-west and terminates in Cape Roca. The Spanish mountains of Toledo are prolonged south through the province of Alemtejo. The southern coast of Portugal is bordered by the *Sierra Monchique*, which terminates in Cape St. Vincent.

RIVERS.—The principal rivers of Portugal are the Minho, Douro, Mondego, Tagus, and Guadiana, all flowing into the Atlantic. Only one of the number, the *Mondego*, is wholly Portuguese. The four others have the larger portion of their courses in Spain.

¹ Portugal, Lat. *Portus Cale*, "the port of Cale" (the modern Oporto), at the mouth of the Douro. The old name of the country was *Lusitania*. From 1580 to 1640 Portugal was subject to Spain.

² *Guadiana*. From the Arabic *wady*, river, and *Anas*, the ancient name.

³ *Madeira*, wood or timber.

⁴ *Azores*, Portuguese, *azor*, a hawk. When first discovered hawks were very numerous, hence the name.

⁵ *Roca*, a rock; also called the rock of Lisbon.

⁶ *Sierra* (see footnote p. 159)

The *Minho* forms part of the northern frontier of Portugal; the *Douro*, *Tagus*, and *Guadiana* form portions of its eastern boundary. The last 120 miles of the *Douro* is entirely within Portugal, of which it drains an area of 7500 square miles, or about a fifth part of its total area. The *Tagus* is navigable to Albrantes, a distance of 90 miles from the sea; and its estuary, which varies in width from two to seven miles, forms the splendid Bay of Lisbon, one of the most magnificent natural harbours in the world. The *Guadiana* is navigable only for thirty miles from the sea. Owing to the broken nature of the country, the rivers are generally rapid and run in deep channels. They are, consequently, for the most part but little available for either navigation or irrigation.

CLIMATE.—The climate of Portugal is warm and equable. This latter quality is due to its maritime position. Lisbon, its capital, exhibits remarkably little variation of temperature throughout the year, and thus presents a remarkable contrast to Madrid, which is subject to great extremes of heat and cold.

Rainfall.—The district of Coimbra is one of the wettest places in Europe, the rainfall exceeding 200 inches annually. The annual rainfall at Madrid only amounts to ten inches. Snow falls on the hills north of the *Tagus* in winter, but it is never seen along the southern coast districts.

PRODUCTIONS.—The natural productions of Portugal (in the vegetable kingdom) resemble those of the south and south-east coasts of Spain. The *vine* and the *olive*, the *orange*, *lemon*, *citron*, *almond*, *fig*, and the *myrtle* abound. There are large forests of *oak*, *chestnuts*, and *cork*. The mineral resources of the country comprehend *copper*, *lead*, and numerous other metals, very few of them, however, being worked.

INHABITANTS.—In 1879 the population of Portugal was estimated at 4,745,124 (an average of 130 to the square mile), exclusive of the colonies.

Race and Language.—The Portuguese are of the same origin as the Spaniards and speak a dialect of the same language, which, however, differs considerably from the present Spanish tongue. But in spite of a common origin and similar languages, there is much antipathy between the Portuguese and the Spaniards.

INDUSTRY.—Every branch of industry is in a backward condition, and the abundant natural resources which the country possesses are turned to comparatively little account.

The most important branches of labour are in connection with the wine trade. The *port wines* so largely consumed in England and elsewhere are derived from Oporto, at the mouth of the *Douro*, and are the produce of the wine-district of the Alto-Douro—that is, the upper portion of the river, within the Portuguese frontier.

Portugal has few manufactures. Her foreign trade consists chiefly in the export of *wines*, with *lemons*, *almonds*, and other *fruits*. The average value of wine exported from Portugal to the United Kingdom alone is considerably over £1,000,000.

PORTS.—The principal are Lisbon, Oporto, and Setubal.

INTERNAL COMMUNICATION.—The mountainous nature of the country and the wretchedly constructed *roads* greatly obstruct inland communication. There are, however, nearly 1000 miles of *railway* open for traffic or in course of construction. There are also about 2300 miles of *telegraphic lines* in operation.

GOVERNMENT.—The kingdom of Portugal is an hereditary and limited monarchy. The legislative and, to some extent, the executive, power is vested in the *Cortes*, composed of two chambers, the House of Peers and House of Commons.

Finance.—The estimated *Revenue* for 1880-81 amounted to £6,336,000, and the *Expenditure* to £7,511,000. At the end of 1880 the *Public Debt* amounted to £78,833,000.

Army and Navy.—In 1879 the *army* numbered nearly 20,000 men, exclusive of 8500 artillery and infantry, and a reserve of 9500 men, employed in the colonies. The *navy* consisted of 24 steamers, carrying 170 guns, and 18 sailing vessels, and is manned by about 3500 men.

EDUCATION.—Public education is in a very backward state, although entirely under the control of a government Council of Education. There is only one university, that of Coimbra (founded in 1290), attended by nearly a thousand students.

Although the principle of compulsory attendance was adopted in 1844, the law has never been properly enforced, and consequently the percentage of children attending school is very low (1 in every 36).

RELIGION.—The Roman Catholic religion is almost uniformly followed, but other sects are tolerated. There are only about 500 Protestants, mostly foreigners.

DIVISIONS and TOWNS.—Portugal includes the following seven provinces, which are divided for administrative purposes into seventeen districts :—

Provinces.	Districts.	Chief Towns.
Estremadura, ¹	Lisbon, ...	Lisbon.
	Santarem, ...	Santarem.
	Leira, ...	Leira.
Alemtejo, ²	Evora, ...	Evora.
	Portalegre, ...	Portalegre.
	Beja, ...	Beja.
Beira Alta, ...	Coimbra, ...	Coimbra.
	Visen, ...	Visen.
	Aveiro, ...	Aveiro.
Beira Baixa, ...	Guarda, ...	Guarda.
	Castello-Branco, ...	Castello-Branco.
Traz-os-Montes, ³	Braganca, ...	Braganca.
	Villa Real, ...	Villa Real.
Entre Douro e Minho, ⁴	Oporto, ...	Oporto.
	Braga, ...	Braga.
	Viana, ...	Viana.
Algarve, ⁵	Faro, ...	Faro.

LISBON⁶ (population, 280,000) and **OPORTO** (population, 90,000) are the only two great cities which Portugal contains, and divide between them nearly the whole of its commerce. Oporto is the chief seat of the wine trade, Lisbon that of the more general foreign trade.

¹ Estremadura, the extreme boundary.

² Alemtejo, beyond the Tagus.

³ Traz-os-Montes, beyond the mountains.

⁴ Entre Douro e Minho, between the Douro and Minho.

⁵ Algarve, Arabic, *el gharb*, the west.

⁶ Lisbon was almost entirely destroyed by the earthquake of 1755, when 60,000 persons perished.

Lisbon, the capital of Portugal, stands on the north side of the Tagus, upon the estuary which that river forms at its entrance into the sea. The mouth of the Tagus forms one of the finest of natural harbours. The climate of Lisbon is very healthy, and is much resorted to by invalids from the more northerly countries of Europe, especially those afflicted with pulmonary complaints. **Oporto**, the second city in the kingdom, is situated on the Douro, a short distance above its mouth.

BRAGA (population, 20,000), **COIMBRA** (population, 18,000), and **SETUBAL** (population, 15,000), come next in order of size.

Braga is the ecclesiastical capital of Portugal, and has also some manufactures. **Coimbra**, which is on the river Mondego (nearly midway between Oporto and Lisbon), is the seat of the only Portuguese university, which was founded in 1290. **Setubal**, or **St. Ubes**, is situated on a bay called by its name, to the south-east of Lisbon. Its chief trade consists in the export of salt, derived by evaporation from the adjacent shores.

Vimiera, the scene of a victory gained by the English in 1808, is a small town to the northward of Lisbon; and **Torres Vedras**, rendered famous by the well-known lines of defence constructed by Wellington in 1810, is in the same direction, nearer to the capital. **Cape St. Vincent**, in the south-west of Portugal, gives its name to the naval victory gained by the English in 1797.

Besides the seven divisions given in the table on the preceding page, the Azores and Madeira Islands are considered parts of the home country, and, unlike the other colonial possessions of Portugal, are directly represented by deputies in the Cortes.

1. The **Azores** are situated in the Atlantic Ocean, due west from the coast of Portugal, and are reckoned to belong to this division of the globe, though too far distant from the shores of the mainland to be shown upon the maps of Europe. They consist of a group of nine islands, the largest of which is named St. Michael, and the next in size, Terceira. The total area is officially estimated at 966 square miles, and the population at 261,746. The island of St. Michael furnishes great numbers of oranges, which (with some corn) are the chief articles of export. The town of **Angra** (population, 13,000), on Terceira, is the capital of the group. But **Ponte Delgada** (population, 16,000), on the south side of St. Michael, is commercially far more important.

2. **Madeira** is a beautiful and fertile island, 290 square miles in area,¹ and measuring 35 miles in the direction of its length. It is mountainous, and wholly of volcanic formation, consisting of a mass of basaltic rock. The highest point in the island reaches upwards of 6000 feet above the sea. The climate of Madeira is particularly celebrated. The air is almost uniformly warm, exhibiting remarkably little variation in its temperature throughout the year. The vegetation is rich and luxuriant in the extreme, the fruits and evergreens of southern Europe growing over all the moderately-elevated portions of the island, and the palm and banana thriving in the lower plains. The vine was long cultivated in Madeira on a scale of great extent, and furnished the chief produce of the island; but it has been completely destroyed by disease within recent years, and great suffering thence occasioned to the inhabitants. The culture of the sugar-cane has been introduced in its stead. The inhabitants of Madeira number 118,000, chiefly Portuguese. The chief town of the island is **Funchal**, on the south coast. The small island of Porto Santo, to the eastward of Madeira, also belongs to Portugal. It is a dependency of Madeira.

¹ About twice the size of the Isle of Wight.

COLONIES.—The foreign possessions of Portugal comprehend the *Cape Verde Islands*; *Angola* and *Benguela*, on the west coast of Africa, with *St. Thomas* and *Prince's Islands* (in the Gulf of Guinea); *Mozambique* and other territories on the east side of the African continent; together with *Goa* (on the coast of India), *Macao* (in China), and part of the island of *Timor*, in the East Indies.

The Portuguese possessions in Africa are officially estimated to occupy an area of 697,000 square miles, with a population of about 2,500,000. The possessions in Asia have now an area of only 7160 square miles, and a population of about 850,000. The foreign possessions of Portugal were formerly much more extensive than at present. In the fifteenth century the Portuguese were the foremost among the maritime nations of Europe; and the discoveries of Cabral in the Atlantic and Da Gama in the Indian Ocean were speedily followed by the conquest of vast territories in South America and the East Indies.

QUESTIONS ON SPAIN AND PORTUGAL.

1. How is Spain bounded; and what is its size as compared with that of England and Wales?
2. In what does the coast-line of Spain differ from that of the Italian or the Grecian peninsulas?
3. Name the principal capes. Point to them on the map.
4. What islands in the Mediterranean belong to Spain?
5. Name the mountain-chains of Spain. Which of them are highest?
6. What kind of country (as to physical features) does the interior of the Spanish peninsula form?
7. Enumerate the principal rivers of Spain.
8. By what is the climate of Spain chiefly characterised?
9. What productions of the vegetable kingdom belong to the southern and eastern shores of Spain?
10. What minerals does Spain possess? Which among them is furnished by the mines of Almaden, and where is that place?
11. What branches of industry chiefly distinguish Spain?
12. Under what form of government is Spain? Name the thirteen provinces into which Spain is historically divided.
13. Which of these provinces is most to the southward? Which in the north-west angle of the peninsula? Which in the north-east? Which two in the central parts of the kingdom?
14. In which of the provinces are the following towns:—Madrid, Burgos, Valladolid, Seville, Cadiz, Cartagena, and Alicante?
15. In which provinces are Badajoz, Saragossa, Pamplona, Oviedo, Corunna, and Santiago?
16. Upon what rivers are the following towns situated:—Madrid, Toledo, Badajoz, Cordova, Saragossa, and Granada?
17. Upon what portions of the Spanish coasts are Cadiz, Malaga, Cartagena, Barcelona, St. Sebastian, Ferrol, and Vigo?
18. For what are Talavera, Badajoz, Saragossa, and St. Sebastian historically noteworthy?
19. By what events have the ports of Palos and San Lucar been distinguished? In what part of Spain are they situated?
20. In what part of Spain is Gibraltar? What are the peculiarities of its situation (as to natural features), and to what nation does it belong?
21. What foreign possessions belong to Spain?
22. How is Portugal bounded? What is its size as compared with that of Spain, and England and Wales?
23. Name the rivers of Portugal. Which of the number has its course entirely within that country?
24. What kind of climate has Portugal? What fruits are among its productions?
25. What branch of industry is most important in Portugal? In what does its foreign trade chiefly consist?
26. Under what form of government is Portugal? What religion is uniformly followed?
27. In which of the provinces of Portugal are Lisbon and Oporto respectively situated? On what rivers are they?
28. Where are Coimbra and Setubal? What article of commerce does Setubal furnish?
29. For what are the localities of Viera, Torres Vedras, and Cape St. Vincent noteworthy?
30. Describe briefly the Azores and Madeira. What other colonies belong to Portugal?

A S I A.

ASIA¹ is largest among the divisions of the globe. It is the most eastwardly of the three continents which constitute the Old World. The continent of Asia falls entirely within the northern hemisphere, but some of the adjacent islands extend to the south of the equator.

BOUNDARIES.—Asia is bounded on the *north* by the Arctic Ocean; on the *east* by the Pacific Ocean; on the *south* by the Indian Ocean; on the *west* by the Red Sea, the Mediterranean Sea, the Black Sea, Mount Caucasus, the Caspian Sea, the river Ural, and the Ural Mountains.

To the northward of Mount Caucasus and the Caspian Sea, Asia and Europe constitute one continuous expanse of land, with only the course of the river Ural and the slight elevations of the Ural Mountains to mark the division between them. Asia is joined to Africa by the Isthmus of Suez, 73 miles wide, which divides the Mediterranean and the Red Seas.

EXTENT.—Asia measures more than 5000 miles across in the direction of east and west, and about 4000 miles in its average dimensions from north to south. Its *area* is 17,500,000 square miles, so that it is nearly five times larger than Europe.

Asia thus embraces more than a third part of all the land, or a twelfth part of the entire surface, of the globe. The distance between Cape Chelyuskin, the extreme northerly point of the continent, to Cape Romania, the most southerly point (about 5300 miles), is much less than the distance between the most easterly and westerly points, East Cape and Cape Baba (about 7000 miles).

COASTS.—The total length of the *coast-line* of Asia is about 35,000 miles, equivalent to an average of 1 mile of coast to every 500 square miles of area.²

In shape Asia is less irregular and more solid than Europe. Its vast interior exhibits an immense expanse of land, far removed from contact with the ocean. But its external portions, both in the east and the south, are indented by arms of the sea.

1. INLETS.—Each of the three great oceans which wash the shores of Asia have several considerable inlets, but those belonging to the Indian and Pacific oceans are much more numerous than those connected with the Arctic.

(1.) The *Arctic Ocean*, on the north side of Asia, has two considerable gulfs, the *Gulf of Obi* and the *Gulf of Yenesei*.

(2.) The *Pacific Ocean*, which washes the eastern shores of Asia, has the following arms:—the *Sea of Kamchatka*, the *Sea of Okhotsk*, the *Japan Sea*, the *Yellow Sea*, and the *China Sea*. These are not inland seas, in the strict meaning of the term, but they are divided from the open ocean by chains

¹ *Asia*. Most probably derived from a Hebrew or Assyrian root, meaning the "East" or the "rising sun." Ritter is of opinion that it is derived from the *Asai*, one of the old Caucasian tribes mentioned by Ptolemy.

² Europe has 1 mile of coast to every 190

square miles of area. No part of Europe is more than 700 miles from the sea, and the average distance of central Europe is under 400 miles, but the Great Altai Mountains, in centre of the continent, are about 1600 miles from each of the three great oceans which wash the shores of Asia.

of islands and advancing peninsulas. They are therefore in great measure land-enclosed, though connected with the ocean by numerous channels. The northern part of the Japan Sea is called the *Gulf of Tartary*.

(3.) The **Indian Ocean**,¹ on the south of Asia, divides into the *Bay of Bengal* and the *Arabian Sea*; the former is on the east side of the peninsula of India proper, the latter on its western side. The *Red Sea*² and the *Persian Gulf*, which are two inland seas, are likewise arms of the Indian Ocean. The Red Sea divides on the north into the gulfs of Suez and Akaba, between which is the Sinai peninsula.

(4.) The western shores of Asia are washed in part by the Mediterranean, Black, and Caspian seas. The gulfs of Iskenderoon and Adalia belong to the Mediterranean, and the Scythian Gulf and Dead Bay to the Caspian.

2. **STRAITS**.—The most important straits of Asia are the five following:—

- (1.) **Strait of Bab-el-Mandeb**, forming the entrance to the Red Sea.
- (2.) **Strait of Ormuz**, forming the entrance to the Persian Gulf.
- (3.) **Strait of Malacca**, forming one entrance to the China Sea.
- (4.) **Strait of Sunda**, forming another entrance to the China Sea.
- (5.) **Behring Strait**, between Asia and North America.

Besides these there are the *Dardanelles* (between the Archipelago and the Sea of Marmora), and the *Channel of Constantinople* (between the Sea of Marmora and the Black Sea), which are European as well as Asiatic. The broader channel which extends between the Strait of Bab-el-Mandeb³ and the Indian Ocean is called the *Gulf of Aden*, and the similar channel which leads to the Strait of Ormuz is called the *Gulf of Oman*.

3. **CAPIES**.—The principal are the North Cape,⁴ East Cape, Cape Lopatka, Cape Romania, Cape Comorin, Cape Al-Had, Cape Carmel, and Cape Baba.

The *North Cape* of Asia, the extreme point of the Taimyr peninsula, is the most northerly point of that continent, and approaches within less than twelve degrees of the pole. *Cape Romania*, the terminal headland of the Malay peninsula, is the most southerly point, and is little more than one degree distant from the equator. *East Cape*, the most easterly point, is only 36 miles distant from Cape Prince of Wales on the American side of Behring Strait. *Cape Baba*, in Asia Minor, is the most westerly point of the mainland, but several of the islands in the *Ægean Sea*, which geographically belong to Asia, lie some miles farther west.

PENINSULAS.—The following peninsulas belong to Asia:—Kamchatka, Corea, India beyond the Ganges (or the Indo-Chinese peninsula), India proper, Arabia, and Asia Minor. The two first-mentioned are in the east, the three following in the south, and Asia Minor in the west. The most southwardly portion of the Indo-Chinese peninsula forms the narrow peninsula of Malaya.

¹ For full information relative to the Arctic, Pacific, and Indian oceans, see "The Geography of the Oceans, Physical, Historical, and Descriptive" (G. Philip & Son).

² Red Sea. Generally said to be derived from the coral reefs which abound in it. This is erroneous, as the corals are mostly white. But within the reefs patches of deep red water are frequently seen, whence the name.

These patches are due to the presence of vast numbers of microscopic animalcules.

³ Bab-el-Mandeb, "gate of tears;" so called from the numerous shipwrecks in the early and middle ages.

⁴ North Cape, sometimes called North-East Cape or Cape Severo. The Russian name (Chelyuskin) is now generally used by geographers.

The Asiatic peninsulas, though considerable in size, yet bear a much smaller proportion to the entire extent of Asia than the peninsular portions of Europe do to the whole of the European continent. They leave the great central mass of Asia in unbroken solidity. In Asia the peninsulas merely fill the place of external members to the general framework of the continent; in Europe they constitute the most important features of the continent itself. This difference is highly important. It is a remarkable fact that all the great peninsulas of Asia, except Asia Minor, are, like those of Europe, turned to the south. It is also noteworthy that all the Asiatic peninsulas, except Malaya and Kamchatka, unite more or less broadly with the mainland. The neck of land which joins Kamchatka to the Siberian mainland is about 115 miles wide in its narrowest part, and the *Isthmus of Krah*, which unites the Malay peninsula to the larger Indo-Chinese peninsula in one part only, is about 80 miles wide. But by far the most important is the *Isthmus of Suez*, which connects Asia with Africa. This isthmus is about 70 miles across, and is now traversed by a ship canal from Port Said on the Mediterranean to Suez on the Red Sea. This canal has almost entirely superseded the overland route by rail from Alexandria to Cairo and thence to Suez, and is at present the great highway of commerce between Europe and the East Indies.

ISLANDS.—The islands of Asia are important and numerous, especially off its southern and eastern coasts. They may be arranged in four great classes—(1.) those situated in the Arctic Ocean, (2.) those in the Pacific, (3.) those in the Indian Ocean, and (4.) those in the Mediterranean Sea.

1. **In the Arctic Ocean** are the Liakhov¹ and Bear Islands, off the northern coast of Siberia.

2. **In the Pacific Ocean** are the Aleutian Islands, which extend from Alaska to Kamchatka and enclose Behring Sea; Kurile Islands, between Kamchatka and Japan, and enclose the Sea of Okhotsk; Saghalien,² between the Sea of Okhotsk and the Sea of Japan—the latter sea is enclosed on the east by the Japanese Islands (Jesso, Nippon, Sikok, and Kiusiu); Loo-choo Islands, a group midway between Kiusiu and Formosa;³ Hainan, off the entrance to the Gulf of Tonquin; and the Philippine Islands. The last-named group of islands forms a portion of an extensive region known as the Malay Archipelago, which lies between the waters of the Pacific and Indian oceans, bordering upon each.

The *Malay Archipelago*⁴ embraces, besides the Philippine Islands, the large islands of Borneo, Sumatra,⁵ Java, and Celebes, with the group of the Moluccas, and a long chain of smaller islands, which stretch to the eastward of Java and are known as the Lesser Sunda Islands. *Borneo* is the largest island in the East Indies, and (regarding Australia as a continent) the largest island in the world.

3. **In the Indian Ocean** :—Ceylon, off the south-eastern extremity of India; the Andaman and Nicobar Islands, in the Bay of Bengal; and the Laccadive and Maldive Islands, off the south-western coast of India.

4. **In the Mediterranean Sea** :—Cyprus, in the Levant, with Rhodes, Kos, Samo, Mytilene, and several of the small islands of the Archipelago.

. The above islands are described under the countries to which they geographically belong.

¹ These islands are noted for the immense quantities of fossil ivory found on them.

² Or Tarakal.

³ Formosa, "beautiful."

⁴ Also called *Malaysia* and *East Indian*

Archipelago. Several of the Malaysian islands contain numerous active volcanoes, and the whole group is subject to earthquakes.

⁵ Sumatra and Java are together called the Greater Sunda Islands.

EXAMINATION QUESTIONS.

1. State briefly the position and boundaries of Asia.
2. What are the dimensions of Asia, and what proportion does its area bear to the whole extent of the land upon the globe?
3. What characterises the shape of the Asiatic continent?
4. What two gulfs does the Arctic Ocean, on the north of Asia, form?
5. What seas occur upon the east side of Asia?
6. What two great arms has the Indian Ocean, to the south of Asia?
7. What two inland seas belong to Asia?
8. Where are the following:—the Gulf of Obi, the Sea of Okhotsk, the Gulf of Tartary, the China Sea, and the Bay of Bengal.
9. Name the five principal straits of Asia, and state the seas and gulfs which they unite.
10. Name the principal capes of Asia, and state which of them form the extreme points of the continent.
11. How near does the most northerly cape of Asia approach to the pole?
12. How near is the most southerly point of Asia to the equator?
13. Name the six considerable Asiatic peninsulas.
14. What smaller peninsula forms the southwardly portion of India beyond the Ganges?
15. In what respect do the peninsulas of Asia differ (in their relation to the entire mass of the Asiatic continent) from those of Europe?
16. What isthmus joins (1) the Malay peninsula to the mainland; (2) Asia to Africa?
17. Name the principal islands of Asia, and say where they are situated.
18. What group of islands is situated to the north of Asia?
19. Point on the map to the following:—Japan, the Kurile Islands, Formosa, Sumatra, Ceylon, the Andaman Islands, the Maldivé Islands, and Cyprus.

SURFACE.—The characteristic feature in the surface of Asia is the vast contrast between the loftiest mountains and the greatest depressions; extensive plateaus and enormous plains; most fertile tracts bordering on sterile deserts.

A careful examination of a good physical map of Asia will enable the student to note the actual examples of these characteristic contrasts of the Asiatic continent. Thus, while some of the Himalayan peaks rise 10,000 feet above the line of perpetual snow, the Runn of Cutch is so low that it is inundated by the sea during the south-west monsoon; the vast plateau of Tibet contrasts strongly with the plains of Siberia and Hindustan; and the fertile and productive plain of the Ganges is only divided from the bare and sandy expanse of the Great Indian Desert by the Aravulli range.

TABLELANDS.—The mountains of Asia are the highest in the world; but they are, notwithstanding, of inferior importance to the vast and elevated masses of tableland which belong to this continent. The mountain-chains of Asia generally mark the outer borders of the high interior plateaus. Hence their slope, or descent, is much greater upon one side than upon the other, and the apparent altitude of the chain is different according as it is viewed from the grounds which form its base in opposite directions.

The principal *tablelands* or highlands of Asia are the following:—

- | | | |
|-----------------|--------------------|----------------|
| 1. Tibet. | 4. Iran or Persia. | 7. The Deccan. |
| 2. Mongolia. | 5. Armenia. | 8. Arabia. |
| 3. Afghanistan. | 6. Asia Minor. | |

The places of these will be readily found upon the map. Tibet and Mongolia (it will be seen) occupy the interior and most central regions of the Asiatic continent, far distant from any of the oceans by which the shores of Asia are washed. Afghanistan, Persia (Iran), Armenia, and Asia Minor stretch in succession from the north-western borders of India to

the shores of the Mediterranean and Black Seas. The Deccan embraces the interior of central and southern India. The Arabian plateau comprises all the interior of the large peninsula of Arabia.

These regions are of various heights, ranging between 2500 and 16,000 feet above the level of the sea; but they all lie at much greater elevations than other parts of the continent, and most of the rivers of Asia have their origin in the mountain-chains which form their external borders. The most elevated of the number is *Tibet*, the plains of which are at the astonishing altitude of 16,000 feet (or upwards of three miles) above the sea. Tibet is hence, comparatively to its latitude, a cold country.

MOUNTAINS.—The mountains of Asia lie principally in the direction of east and west, and form, in most instances, the borders of the tablelands. Some of them, however, have an opposite direction, running from north to south. The principal are :—

1. **Himalaya Mountains**,¹ between India and Tibet.
2. **Hindu-Kush**, between Afghanistan and Turkestan.
3. **Altai Mountains**,² between Mongolia and Siberia.
4. { **Kuen-luen**, between Tibet and Chinese Turkestan.
- { **Thian-shan**,³ through Chinese Turkestan and Mongolia.
5. **Mountains of Armenia**, on the plateau of Armenia.
6. **Mount Taurus**, in Asia Minor.
7. **Mountains of Lebanon**, on the east coast of Syria.
8. **The Ghauts**, on the eastern and western coasts of India.

Of the above ranges two only, the Ghauts and the Mountains of Lebanon, extend in the direction of north and south—all the rest extend generally in an east-to-west direction. Several of the minor ranges, however, also extend north and south, such as the Soliman and Hala Mountains, on the western frontiers of India. These and other minor ranges are described under the countries in which they are situated.

(1.) The **Himalaya Mountains** are by far the highest of the mountains of Asia. All the upper portions of this vast range rise above the line of perpetual snow, and the principal peaks exceed 20,000 feet in altitude. The most elevated of the Himalaya peaks is *Mount Everest*, which reaches 29,002 feet above the sea, and is the highest known mountain on the globe. This is a stupendous elevation, amounting to more than five miles in perpendicular height, and nearly double that of Mont Blanc, the highest summit of the Alps. Yet, great as it is compared with man, or the works of man, it is trifling as compared with the entire magnitude of the globe.⁴ Many other of the peaks of the Himalaya nearly rival Mount Everest in height, *e.g.*, the *Karakorum Peak*, in the north-western portion of the range, which reaches 28,265 feet, and is thus the second highest mountain in the world. The higher valleys of the Himalayas are filled with vast glaciers, which exceed in size those of any other part of the world. It is worthy of note that the snow-line on the northern side of the Himalaya is 3000 feet higher than on the southern side (18,000 and 15,000 feet respectively).

¹ **Himalaya**, from Sanskrit *him*, snow; *alaya*, place.

² **Altai Mountains**: called by the Mongols *Alta-in-ooli*, *i.e.*, golden mountains. The name Altai is most probably derived from the Turkish *Alt-tagh*, the mountain.

³ **Thian-shan**, "mountains of the sky;" also called the "Celestial Mountains." The Chinese name for the empire (*T'at'-chung-K'io*) means the "Celestial Empire."

⁴ The height of Mount Everest is equal to about one *fifteen-hundredth* part of the length of the earth's diameter, and would be represented on the largest of our artificial globes by a minute grain of sand. So little do the loftiest elevations on the earth's surface detract from the sphericity of the entire mass of the globe. The altitude of this mountain was first determined by Colonel Everest, hence its name.

(2.) The **Hindu-Kush** adjoin the western extremity of the Himalaya (from which they are divided by the valley of the Indus), and reach nearly 20,000 feet in altitude. They form part of a vast mountain-knot, or centre of elevation, whence various elevated chains and ridges diverge, and form a connecting link between the highlands of central Asia and those that belong to the more westerly division of the continent.

(3.) The **Altai Mountains** are much less elevated, their height not generally exceeding from five to seven thousand feet; but they form part of a continuous succession of high grounds which stretch to the easternmost extremity of the Asiatic continent.

(4.) The **Kuen-luen** and **Thian-shan** ranges stretch through the plains of central Asia, across the country which intervenes between the Himalaya and the Altai systems. They rise above the snow-line, the summits of the former reaching 20,000 feet.

(5.) The **Mountains of Armenia** culminate in *Mount Ararat* (17,000 feet), which tradition indicates as the resting-place of the Ark on the subsidence of the Deluge. It is within the Russian territory, but near the borders of Asiatic Turkey and Persia.

(6.) The chain of **Mount Taurus** extends along the south coast of the peninsula of Asia Minor, and is from 4000 to 5000 feet in average height.

(7.) The **Mountains of Lebanon** stretch, in a double chain, along the coast of Syria, bordering the eastern Mediterranean. Their highest summit is *Mount Hermon*, which rises 10,000 feet above the sea.

(8.) The **Western Ghauts**, which extend along the western coast of the Indian peninsula, are from 3000 to 4000 feet in average height, and attain double that altitude in their highest elevations. The **Eastern Ghauts**, on the opposite side of the peninsula, are less elevated.

PLAINS.—The interior regions of Asia are for the most part elevated; the lowland plains occupy its outer borders towards the sea. The names and localities of these plains¹ are as follow :—

1. The **Plain of Siberia**, occupying all the north of Asia.
2. The **Plain of Turkestan**, extends south and east of Lake Aral.
3. The **Plain of China**, in the north-east of China, along the Yellow Sea.
4. The **Plain of Tonquin**, in the north of Anam, along the Gulf of Tonquin.
5. The **Plain of Siam**, at the head of the Gulf of Siam.
6. The **Plain of Pegu**, in Farther India, to the south of Burmah.
7. The **Plain of Hindustan**, the northerly portion of India proper.
8. The **Plain of Mesopotamia** and **Babylonia**, in Asiatic Turkey.

DESERTS.—Asia contains some extensive deserts. They stretch, in nearly continuous succession, from the most central regions of the interior to the shores of its south-western peninsula, Arabia, where they meet the waters of the Red Sea. Their names¹ are as follow :—

1. **Desert of Gobi** or **Shamo**,² in Mongolia (Chinese Empire).
2. **Indian Desert**, in India, between the Indus and Ganges.
3. **Deserts of Selstan** and **Makran**, to the south-west of Afghanistan.
4. **Great Salt Desert** (Dasht-i-kavir), in Persia.
5. **Desert of Mesopotamia**,³ between the Tigris and the Euphrates.
6. **Syrian Desert**, in the east of Syria, Asiatic Turkey.
7. **Desert of Arabia**, in the interior of Arabia.

¹ A detailed description of each of the above plains and deserts is given in the geography of the countries in which they are situated.

² Gobi is the Mongolian word for "desert;" Shamo (Chinese), "sea of sand."

³ Or Al-Jezireh.

RIVERS.—The rivers of Asia are the largest in the Old World. Most of them derive their origin from the high tablelands and bordering mountains in the interior of the continent, and flow through the lowland plains into the oceans by which Asia is bounded on the north, east, and south. Some of the rivers in the western part of Asia, however, flow either into the Caspian Sea or the Lake of Aral, and hence never reach the ocean; and many of the smaller streams of the interior terminate in saltwater lakes, without any outlet. A large region of central Asia is thus limited to an inland drainage, and devoid of any natural outlet to the sea, a fact which has been productive of highly important consequences to the inhabitants of those regions, and has largely influenced the history of mankind. The rivers of Asia may be arranged as follows, according to the oceans into which they flow.

1. *Flowing into the Arctic Ocean*:—the **Obi** (2600 miles), **Yenesel** (2900 miles), and **Lena** (2500 miles), which rise in the Altai Mountains, and flow through Siberia, but are frozen during the greater part of the year.

2. *Flowing into the Pacific Ocean*:—the **Amour** (2300 miles), which rises in the Mongolian highlands, and flows through Manchouria into the Gulf of Tartary; the **Hwang-ho** (2600 miles) and **Yang-tze-kiang** (3200 miles), which rise near each other in the mountains of East Tibet, and after draining almost the whole of China fall into the Yellow Sea; the **Choo-kiang** (1100 miles) or Canton river, which drains south-east China and enters the China Sea; the **Mekon** (1600 miles), which rises in the mountains of Yunan, and drains Siam and Cambodia; and the **Menam** (900 miles), which flows through Siam into the Gulf of Siam.

3. *Flowing into the Indian Ocean*:—the **Saluen** (150 miles) and **Irawady** (1200 miles), which flow through Farther India into the Gulf of Martaban; the **Brahmaputra** (930 miles), which rises on and drains the northern slopes of the Himalaya and breaks through the chain in 95° east long., and flows through Assam, finally joining one of the channels in the delta of the Ganges; the **Ganges** (1500 miles), which rises on the south slopes of the Himalaya and flows south-east through the great plain of Hindustan, entering the Bay of Bengal by numerous mouths, which enclose an extensive delta; the **Mahanuddy** (520 miles), **Godavery** (900 miles), **Krishna** (800 miles), **Cauvery** (472 miles), and **Tapti** (500 miles), which drain peninsular India south of the Sautpoora Mountains, and flow into the Bay of Bengal; the **Nerbudda** (800 miles), which flows through the valley formed by the Vindhya Mountains on the north, and the Sautpoora on the south, into the Gulf of Cambay; the **Indus** (1700 miles), which rises in the plateau of Tibet at an elevation of 15,000 feet. Flowing first north-west, between the Himalaya and Karakoram ranges, it then turns south through the plain of India and falls into the Arabian Sea by several mouths. At Attock, 950 miles from the sea, it receives the Cabul river, and about 450 miles lower down receives, in one stream, the united waters of the **Jhelum**, **Chenab**, **Ravee**, **Beas**, and **Sutlej**. The **Tigris** (1100 miles) and **Euphrates** (1700 miles), flowing into a common estuary, the **Shat-el-Arab** (100 miles), which enters the Persian Gulf.

4. *Flowing into the Caspian*:—the **Kour** (550 miles); principal tributary, the **Aras** (ancient Araxes).

5. *Flowing into the Sea of Aral*:—the **Amoo** or **Jihoon** (ancient **Oxus**), 1300 miles long, and the **Syr** or **Sihoon** (ancient **Jaxartes**), 1150 miles.

6. *Flowing into the Black Sea*:—the **Kizil Irmak** (500 miles), in Asia Minor, and the **Rion**, in Transcaucasia.

7. *Inland rivers, of which the principal are the* **Helmund** (600 miles), flowing into Lake Seistan; the **Jordan** (200 miles), which falls into the Dead Sea; and the **Tarim** or **Ergheu** (900 miles), which flows into Lake Nop (*Lop Nor*).

* * * A detailed account of the principal rivers is given under the countries to which they geographically belong. Meanwhile the following table, showing the chief *river-systems* of Asia, may be useful:—

System.	Rivers.	Outlet.
Northern System,	Obi, Yenesei, Lena, ...	Arctic Ocean.
Eastern System, {	Amour or Saghalien, ... Hwang-ho, Yang-tsze-kiang, ... Choo-kiang, ...	Gulf of Tartary. Yellow Sea. China Sea.
Southern System, {	Mekon, ... Menam, ... Saluen, Irawady, ... Brahmaputra, Ganges, Mahanuddy, } Godavery, Krishna, Cauvery, Tapti, } Nerbudda, Indus, ... Tigris, Euphrates (Shat-el-Arab), ...	China Sea. Gulf of Siam. Gulf of Martaban. Bay of Bengal. Arabian Sea. Persian Gulf.
Western System, {	Kour, ... Syr or Sihoon, Amoo or Jihoon, ... Kizil Irmak, Rion, ... Helmund, Furrah, ... Jordan, ...	Caspian Sea. Sea of Aral. Black Sea. Lake Seistan. Dead Sea.

LAKES.—The two largest lakes of Asia, if we except the Caspian Sea, which is partly European, are *Aral* (26,000 square miles) and *Baikal* (15,000 square miles). The former, which is so large as to be called a sea, is a short distance east of the Caspian, and is a body of salt water. Lake Baikal lies to the north of the Altai Mountains, and has fresh water. In western Asia three large lakes are found upon the Armenian plateau. Two of the number, *Lake Urumiyah* and the *Lake of Van*, are salt; the third, *Lake Goukcha* or *Sevan*, is fresh. The *Dead Sea*, in Syria, which receives the river Jordan, is intensely salt, and is remarkable as lying in a deep hollow, below the general level of the earth's surface.

Many of the lakes which are situated on the high interior plateaus in Tibet and Mongolia are without any outlet, and consist of salt water; but this is not the case with all of them. There are some large freshwater lakes in China adjoining the great rivers of that country. The names of the principal Asiatic lakes, with the countries in which they are situated, are shown in the following table:—

Names.	Position.	Names.	Position.
Aral, ...	Turkestan.	Tong-ting, ...	China.
Baikal, ...	Siberia.	Poyang, ...	China.
Balkash, ...	Siberia.	Hamoon, ...	Persia.
Zaisang, ...	Mongolia.	Bakhtegan, ...	Persia.
Oubsa, ...	Mongolia.	Urumiyah, ...	Persia.
Lopnor, ...	Mongolia.	Van, ...	Turkish Armenia.
Koko-nor, ...	Mongolia.	Goukcha or Sevan, ...	Russian Armenia.
Tengri-nor, ...	Tibet.	Koj-hissar, ...	Asia Minor.
Bouka-nor, ...	Tibet.	Dead Sea, ...	Syria.
Falte, ...	Tibet.	Galilee or Tiberias, ...	Syria.

EXAMINATION QUESTIONS.

1. What are the characteristic features on the surface of Asia?
2. Name and state the position of the principal tablelands of Asia.
3. What is the general direction of the mountain-chains of Asia?
4. Name the principal mountain-systems of Asia.
5. Where are the following:—The Himalaya, Altai, Taurus, Ghauts, Hindu-Kush, and mountains of Lebanon?
6. Which is highest among the mountain-systems of Asia? What is the name of its loftiest summit?
7. What is the average height of the Altai mountain-system? How far does it extend to the eastward?
8. Which is highest amongst the mountains of Armenia? What tradition attaches to it?
9. What is the name of the highest amongst the mountains of the Lebanon system, and what is its altitude?
10. What is the average height of the Ghauts?
11. Name the chief lowland plains.
12. Which is largest amongst the Asiatic lowlands?
13. By what rivers are the plains of Mesopotamia and Babylonia watered?
14. Name the principal deserts of Asia.
15. An extensive region of Asia is watered by rivers which have no outlet to the ocean. What portion of the continent does this comprise?
16. Name the great rivers of Asia which flow into (1) the Arctic Ocean, (2) the Pacific Ocean, (3) the Indian Ocean, (4) the Sea of Aral, (5) the Caspian Sea.
17. Which is longest amongst the rivers of Asia? Which three rank next in order of length?
18. What three rivers rise in the mountain-system of the Himalaya?
19. Whence do the two great rivers of China derive their origin?
20. Which are the two largest among the lakes of Asia? What characteristic difference is there between them?
21. What three lakes are situated on the plateau of Armenia? Are their waters salt or fresh?
22. Name the lakes that are situated in (1) Siberia, (2) Mongolia, (3) Tibet, (4) China, (5) Persia, and (6) Syria.

CLIMATE.¹—Asia comprehends a greater variety of climate than any other division of the globe. This results from its vast extent of land and its great range of latitude. The extreme south of the Asiatic continent nearly touches the equator, and its northernmost portions are within twelve degrees of the pole. Hence there are experienced, within different portions of its vast extent, every variety of temperature, from the burning heat of the tropics to the intensest cold of the Frigid Zone.

But latitude does not alone determine the extraordinary range of Asiatic climates in respect of heat and cold. The vast extent and great altitude of the tablelands of Asia; its stupendous chains of snow-covered mountains; the great distance of its central interior from the modifying influence of oceanic moisture;—these require to be taken into account in order to explain the extremes of heat and cold which distinguish the summers and winters of Asiatic lands.

1. In Asia, as in every other part of the globe, there is a gradual decrease of heat in advancing from the neighbourhood of the equator towards a higher latitude.

(1.) The southern portion of Asia is in the Torrid Zone; its middle parts fall within the Temperate Zone; and its northerly plains are beyond the Arctic Circle—that is, in the Frigid Zone. Hence the southern parts of Asia are hotter than its middle portions, and the latter experience a higher temperature than its more northerly regions.

(2.) But there is also a great difference of temperature between the regions of eastern and western Asia, even in similar latitudes, and the extremes of summer and winter temperature impart wide differences of climate even to countries which make near approach to equality in so far as the average

¹ After a thorough study of the climate of Asia, the student should compare it with that of Europe (see p. 29), noting especially the points of resemblance and difference.

heat of the year is concerned. In general the eastern parts of Asia are colder than the western, and they have greater extremes of heat and cold at opposite seasons of the year; that is, they have hotter summers and colder winters. Similar extremes characterise the high plains of central Asia and (in greater or less measure) all its tableland regions.

2. Three broad and well-marked climatic divisions may be marked out on the map of Asia :—

- (1.) A southern belt of countries, in which the air is hot and moist.
- (2.) A middle zone, which is generally hot and dry, but with great extremes of heat and cold.
- (3.) A northerly zone, which is a region of intense and prolonged cold.

The *first* zone comprises the countries that border on the Indian Ocean and the China Sea, with the exception of Arabia, which is characterised by aridity. The *second* includes the high plateaus which stretch in succession from the shores of the Red Sea to the farther extreme of Mongolia. Tibet and Mongolia furnish its most prominent examples: Afghanistan, Persia, and Arabia fall within its limits, though the low belt of country which borders the outer edge of the Arabian peninsula is intensely hot and arid, and the shores of the Persian Gulf are among the hottest regions of the globe. The *third* zone stretches from the shores of the Caspian Sea and Lake Aral to the easternmost limits of the Siberian plain: Turkestan and Siberia are the countries that it embraces.

Rainfall.—The quantity of rain that falls in most parts of southern Asia is very great, vastly greater than is the case in any part of Europe. But it falls at particular seasons only, and within a brief space of time.

In the countries of the Torrid Zone (to which the south of Asia belongs), the changes of the year are marked by the recurrence of the wet and the dry seasons. Summer and winter, such as they are experienced in temperate latitudes, are there unknown; a lengthened period of dry weather (during which the sun is almost uniformly bright and the sky cloudless) is succeeded by a season of excessive rain, which again gives place to returning drought and heat. These changes are intimately connected with the direction of the winds which blow periodically over the Indian Ocean and the bordering countries, and which are known as the *monsoons*.¹ Throughout southern Asia there is a summer monsoon (April to September), which blows from the south-west; and a winter monsoon (October to March), from the north-east. These winds bring alternate rain or drought, according as they have blown over inland regions or over the adjacent expanse of ocean.

PRODUCTIONS.—The natural productions of Asia are numerous and important. Nearly every mineral and metal is found in this vast continent. The vegetable productions are extremely varied; while the variety of animal life is great, comprising over six hundred mammals, or more than a third of the number of known species.

1. **Metals and Minerals.**—Asia has great variety of mineral produce, and some of the most valued productions of the mineral kingdom are found within its limits. The *diamond* and other precious stones occur; the former in Borneo and others of the East Indian Islands, and also in continental India. *Gold* is furnished in some quantity by the mines of

¹ The word "monsoon" (which is Malay) signifies *season*, a fact which is evidence of the immediate dependence of Indian climates upon the periodical currents of the

atmosphere. The drift-currents of the Indian Ocean north of the equator are also regulated by the monsoons.

Siberia (both in the Altai and Ural mountain-regions), and is also worked in Borneo and the countries of the Indo-Chinese peninsula, together with China and Japan. Both Siberia and China supply *silver* and also *lead*, *iron*, *copper*, *tin*, and other useful metals are distributed through the various countries of western and southern Asia. The tin of Banca (one of the smaller islands of the East Indies, situated to the east of Sumatra) is particularly noted. Iron ore abounds in various parts of India. *Coal* is distributed through various parts of India, China, and Burmah, and is worked in the small island of Labuan, off the north-west coast of Borneo. In western Asia, coal occurs in Asia Minor and in the mountain-range of Lebanon, on the Syrian coast.

2. **Vegetation.**—The native productions of the Asiatic soil are rich and diversified. A great number of the food-plants that are most useful to man, and are now most extensively employed throughout the globe in the supply of man's wants, were originally derived from Asia. *Rice* and probably *wheat*, among the cereals; the *date*, *fig*, *vine*, *plumb*, *cherry*, *peach*, *apple*, *pomegranate*, *olive*, *mulberry*, *lime*, *walnut*, *almond*, *cocoa-nut*, *orange*, *lemon*, *citron*, and *banana*, amongst fruits; together with the *tea-plant*, and various *spices*, are all native to the Asiatic soil. The *sugar-cane*, *indigo*, *cotton*, and *hemp plants* are also native to various countries of Asia. There are, besides, an immense variety of forest trees, as the *teak*, *ebony*, *iron-wood*, *sandal-wood*, *rose-wood*, *cedar*, and many other valuable woods, besides abundant varieties of the *oak*, *birch*, *cypress*, and other trees that belong to the southern and middle latitudes of Europe.

Rice is the chief food-plant of southern Asia, and is the prime support of life to the immense population of China and India. The fruit of the *date-palm* supplies a like place to the people of Arabia and other comparatively arid regions of south-western Asia. The *cocoa-nut* palm is characteristic of the islands of southern and south-eastern Asia, with the shores of the two Indian peninsulas. The *tea-plant* is a native of China and Japan, and is now extensively cultivated in British India.¹ The high plateaus of central Asia are distinguished chiefly by the abundance of their *grasses*; boundless pastures stretch through the whole middle belt of Asia, from the shores of the Caspian to the banks of the Amour and the waters of the Pacific.

3. **Animals.**—The variety of animal life belonging to Asia is very great. All our domestic quadrupeds are native to it, as well as many other animals which are of the highest utility to civilised man.

(1.) First in importance among these is the *camel*, which ranges over the dry plains of south-western and central Asia, from the Red Sea to the farthest extremity of the Gobi and the shores of Lake Baikal, serving everywhere as the means of transport across the arid wilderness. The *elephant*—another of the Asiatic quadrupeds which man has domesticated—belongs to the warm and watered regions in the south-east of the continent, including the two Indian peninsulas and the island of Ceylon. The *horse* frequents all southern and middle Asia, as far north as the sixtieth parallel, and the vast plains that stretch to the eastward of Lake Aral are probably its original seat. The wild ass inhabits the plains of central and south-western Asia.

The vast number of animals belonging to the ox tribe are a marked characteristic of Asiatic zoology. They are most numerous in the high plains of central Asia, and comprise, besides the common *ox*, the *aurochs*, *yak*, *zebu* (or humped ox), *buffalo*, and others. *Antelopes* occur in the drier regions of the south-west.

¹ There are now over one million acres under tea-cultivation in British India.

(2.) Among *carnivora*,¹ the *lion*, *tiger*, *leopard*, *hyena*, *wolf*, and *jackal* are natives of Asia. The lion has now a much less extensive range than formerly, and is restricted to the countries lying between the Euphrates and the Indian Desert. The tiger is found over a much wider circuit, and frequents all the woods and jungles of southern and south-eastern Asia, roaming as far to the north as the deserts of the Mongolian plateau and the Altai Mountains. The hyena and jackal belong chiefly to western Asia; the wolf to the colder districts of the north and west.

The numerous fur-bearing animals which are native to the extreme north of Asia are another of its marked characteristics; among them are the *bear*, *glutton*, *badger*, *wolf*, *fox*, *lynx*, *pole-cat*, *weasel*, *ermine*, *marten*, *otter*, *sable*, *squirrel*, *beaver*, *hare*, and *reindeer*.

(3.) The countries of south-eastern Asia and the islands of the neighbouring archipelago are exceedingly rich in variety of birds, especially those of the *gallinaceous*² tribe, many of them distinguished by their beautiful plumage. It is thence that nearly all our breeds of domestic poultry were originally derived.

The *golden pheasants* of China, and the *Argus pheasants* of the East Indian Islands, belong to south-east Asia and the Malay region. The *peacock* is a native of India. Among insects, the *silkworm* is a native of China, and was not introduced into Europe until the close of the fifth century.

INHABITANTS.—The *population* of Asia comprehends at least half the human race, and probably numbers about 830,000,000. China alone is said to contain more than 300,000,000 people, and India has nearly 200,000,000. The countries of western, central, and northern Asia are much less populous.

Race and Language.—Numerous diversities are found among the various families of mankind by whom Asia is inhabited; diversities of language, as well as of personal structure, appearance, and colour of skin. More than thirty different languages are spoken in India alone, nearly all of them, however, derived from a common stock—the Sanscrit tongue. Most of the languages of western Asia (and also of Europe) are allied, in their roots, to the same stock. The languages of eastern Asia—China and the Indo-Chinese peninsula—form a totally different class. The Chinese, the Indo-Chinese, and the Mongolian tribes are distinguished by striking differences of personal appearance from other nations of mankind. They have a yellowish-brown (or olive) complexion; a broad and flattened face, with obliquely-set and deeply-sunk eyes (the inner corner slanting down towards the nose); lank and black hair, with little beard; a broad, square, and thick-set frame, with a stature considerably below that of Europeans. These are the distinguishing characteristics of the Mongolian variety of the human family. The *Malays*, who inhabit the Malay peninsula and the islands of the East Indian Archipelago, belong to a distinct stock of nations, regarded as forming another of the leading varieties of mankind.

Religion.—Of the two great forms of religion that originated in south-western Asia, *Christianity* and *Mohammedanism*,³ the latter has spread over Arabia, Asiatic Turkey, Persia, Turkestan (and, to a less extent, Hindustan and Malaysia), while the former is confined to Armenia, Georgia, and numerically unimportant sections of Asiatic Russia and British India. The prevailing religion in India is *Brahmanism*, from which, about 600 years B.C.,

¹ That is, *flesh-eating* (Latin).

² That is, the class of birds commonly known as poultry, from the Latin *gallus*, a cock.

³ Mohammedanism is divided into two great sects, the *Sunnites* and the *Shi'ahs* (or *Shi'ites*). The *Wahabi* sect of central Arabia is of comparatively recent origin. (See p. 195.)

sprang *Buddhism*,¹ professed by most of the peoples of the Indo-Chinese countries, and by large numbers of the lower classes in China and Japan. The *Lamaism* of Tibet is another form of Buddhism. The religion of the upper classes in China and Japan is *Confucianism*. Of the minor forms the most interesting is the *fire-worship* founded by Zoroaster, and which is still professed by the Parsees of India and the Guebres or Ghiaours of Persia. The nomadic tribes of Siberia and central Asia are *heathens*.

DIVISIONS.—By far the larger portion of Asia is held by three powers, two of which are European. The *Russian* dominions embrace the whole of the northern part of the continent, a large portion of central Asia, and the provinces of the Caucasus. Under *British* control, direct or indirect, is the vast peninsula of India. The *Chinese* Empire comprises China proper and the adjacent regions of Tibet, Mongolia, Manchooria, and Corea. Of the minor powers the most important are *Japan*, on the east, and *Turkey*, on the west.

The following is a list of the countries of Asia, arranged in the order in which they are described :—

- | | |
|--------------------|----------------------------|
| 1. Turkey in Asia. | 7. Indo-Chinese Countries. |
| 2. Arabia. | 8. Chinese Empire. |
| 3. Persia. | 9. Turkestan. |
| 4. Beluchistan. | 10. Asiatic Russia. |
| 5. Afghanistan. | 11. Malay Archipelago. |
| 6. India. | 12. Japan. |

EXAMINATION QUESTIONS.

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Why is so great a variety of climates experienced within the limits of Asia? 2. Which portions of Asia are within the Torrid Zone, which in the Temperate, and which in the Frigid Zone? 3. What characteristic difference is there between the climates of eastern and western Asia in similar latitudes? 4. What kind of climate do the high tablelands of Asia experience? 5. Dividing Asia into three belts or zones, what kind of climate is characteristic of each, and what countries are embraced within each? 6. What parts of Asia are distinguished by abundance of rain? By what changes are the seasons known in those localities? 7. What are the monsoons, and where do they prevail? 8. How do the monsoons affect the climate of India? 9. In what countries of Asia are gold, silver, iron, copper, tin, and coal found? 10. Name some of the fruits that are native to the soil of Asia. 11. Mention some of the forest trees that belong to this division of the globe. 12. Among the <i>cereals</i> (corn) what grain forms the chief food-plant of southern and south-eastern Asia? 13. To what parts of Asia is the tea plant native? 14. By what kind of vegetation are | <p>the tablelands of central Asia distinguished?</p> <ol style="list-style-type: none"> 15. Of domesticated quadrupeds, name some of those that are natives of Asia. 16. Within what portions of Asia is the camel found? 17. What part of Asia is supposed to have been the original seat of the horse? 18. In what region of Asia are the varieties of oxen most numerous? 19. Among carnivorous animals, name some that are natives of Asia. 20. In what part of Asia is the lion, tiger, hyena, jackal, and wolf found? 21. In what region of Asia are fur-bearing animals common? 22. What class of birds are numerous in south-eastern Asia and the neighbouring islands? 23. To what (in round numbers) is the population of Asia supposed to amount? 24. Which two countries of Asia contain the largest number of inhabitants? 25. In what particular of appearance do the Chinese and the people of south-eastern Asia differ from other varieties of mankind? 26. Name the countries occupied by the Mongolian and the Malay varieties of the human race. 27. What are the prevailing religions of Asia? 28. Name the countries of Asia. |
|---|---|

¹ So called from *Buddha*, a Hindu prince, who first propagated its doctrines in northern India about 500 B.C. Its extension was rapid, and it is now professed by more followers (estimated at 450 millions) than any other religion in the world.

TURKEY IN ASIA.

The **TURKISH EMPIRE** embraces an extensive tract of country in the south-east of Europe, which has been already described. It includes also several large countries in the west of Asia, which form together a continuous region stretching from the shores of the Grecian Archipelago and the Black Sea to the head of the Persian Gulf.

BOUNDARIES.—Turkey in Asia is bounded on the *north* by the Black Sea; on the *west* and *south-west* by the Mediterranean; on the *south* by the Arabian Desert; and on the *east* by Persia and the Russian territory of Trans-Caucasia.

EXTENT.—The *area* is estimated at 710,320 square miles, or nearly twelve and a half times greater than that of England and Wales.¹

The *greatest length*, from north to south, is about 2000 miles.
The *greatest breadth*, from east to west, is nearly 950 miles.

DIVISIONS.—The Turkish dominions in Asia comprehend three distinct regions:—1. Asia Minor; 2. Syria; and 3. the countries on the Euphrates and Tigris.

I. ASIA MINOR.

ASIA MINOR² is an extensive peninsula, enclosed on three sides by the waters of the Black Sea, the Sea of Marmora, the Archipelago, and the Mediterranean.

The Sea of Marmora communicates with the Black Sea by the Channel of Constantinople (or Bosphorus), and with the Archipelago by the strait of the Dardanelles—the ancient *Hellespont*. The Dardanelles, the Sea of Marmora, and the Channel of Constantinople separate the shores of Asia from those of Europe.

COASTS.—The western coasts of Asia Minor are indented by numerous gulfs, among which those of Mytilene, Smyrna, Samos, and Kos are the most extensive. On the south coast are the gulfs of Makri, Adalia, and Scanderoon.

The *Gulf of Scanderoon* is the extreme eastern angle of the Mediterranean, dividing the shores of Asia Minor and Syria. It is about 45 miles long, and has a mean breadth of about 8 miles. The *extreme points* of Asia Minor are **Cape Injeh**, a few miles west of Sinope, on the north; **Cape Anamour**, on the south; and **Cape Baba**, the most westerly point of the Asiatic continent, on the west.

¹ By Article 58 of the Treaty of Berlin, signed July 13, 1878, it was stipulated that "the territories of Ardahan, Kars, and Batoum, with the port of Batoum, as well as all the territories comprised between the former Russo-Turkish frontier and a line beginning at the Black Sea and extending to a point to the north-west of Khorda and

to the south of Artvin," should be annexed to Russia. The ceded territory comprises an area of 5760 square miles, with a population of about 600,000, two-thirds of whom are Mohammedans.

² That is, the *Lesser Asia*, by distinction from the larger portion of the continent so called.

ISLANDS.—Numerous islands line the western coasts of Asia Minor, forming part of the extensive region known as the Archipelago. *Mytilene*, *Khio*¹ (or Scio), *Samos*,² *Kos*,³ and *Rhodes* are the largest amongst them. Off the south-coast, in that part of the Mediterranean known as the Levant, is the large and important island of *Cyprus*.

1. *Mytilene* lies south of Cape Baba, about eight miles distant from the mainland. Its lower plains and valleys are fertile and highly productive, while the slopes of its rugged mountains are covered with pine forests. *Population*, 60,000. *Castro*, the capital, was almost entirely destroyed by an earthquake in 1867.

2. *Samos*, anciently one of the most renowned of the Greek islands, and birthplace of Pythagoras, has an *area* of about 200 square miles and a *population* of 35,000, most of whom are Greeks. By the convention of 1828 the people enjoy local self-government under a Christian prince.

3. *Rhodes*, "the pearl of the Levant," where anciently stood the celebrated "Colossus," is a rich and fertile island: the lower grounds producing corn, wine, fruits, and the higher grounds are covered with fine forest. The strongly fortified capital, *Rhodes*, was formerly one of the most splendid cities, and was held from 1308 to 1522 by the Knights of St. John.

4. *Cyprus* lies in the eastern basin of the Mediterranean, and measures 138 miles in length and 60 miles in breadth. *Area*, 2063 square miles. Physically, Cyprus consists of three distinct regions, viz., a chain of mountains in the north, a mountain-region in the south, and a level tract between these mountains, hence called Mesorea. The eastern part of the Mesorea is watered by the Pedia, the western by the Potamos. The plain is of exceeding fertility, and might be converted into one huge cornfield. There are no navigable rivers. There are several bays and harbours, but not a single harbour capable of giving shelter to a fleet. Except in certain places the climate is salubrious. At an early period in history Cyprus became known for its copper, which has indeed taken its name from that of the island itself. When under the Venetians the *population* was probably about 1,000,000, but at present only 185,700,⁴ mainly Greeks. *Agriculture* is carried on in the rudest manner, and only about eleven per cent. of the total area is cultivated. Some Turkish leather, silk, and cotton stuffs are manufactured. The capital is Levkosia or Nikosia, in the centre of the island, and the other chief towns, Famagusta, Larnaka, and Limasol, are on the coast. By a convention signed on the 4th of June 1878 the Sultan "assigned" Cyprus to England, and on the 11th of July the same year the transfer was effected.⁵

MOUNTAINS and PLAINS.—The interior of Asia Minor is a plateau, ranging between 2000 and 3000 feet above the level of the sea. Upon the north and south this plateau descends by successive terraces to the shores of the Black and Mediterranean seas; upon the west it gradually declines towards the waters of the Archipelago. The most continuous chain of heights is that of Mount Taurus, which forms the southern border of the plateau, towards the Mediterranean.

¹ *Khio* or *Chio* has an *area* of about 400 square miles, and, previous to the recent (April 1881) disastrous earthquake, had a *population* of 65,000. The first shock occurred on Sunday, April 2, and occasional shocks, some of considerable violence, were subsequently felt. It is estimated that 8000 people were killed, while more than double the number were injured. Forty-five villages were totally destroyed, and it is said that barely twenty houses now remain habitable in the island.

² About 30 miles south of *Samos* is *Patmos*, a barren islet, celebrated as the place where St. John was exiled, and where he wrote the *Revelation*.

³ *Kos* lies off the gulf of the same name, and is a picturesque and fertile island, producing corn, cotton, wine, silk, &c. *Population*, 16,000; *area*, 150 square miles.

⁴ According to the census taken, May 1881.

⁵ *Vide* Mr. Ravenstein's admirable work, "Cyprus: its Resources and Capabilities" (G. Philip & Son).

The highest summits of the Taurus hardly exceed 5000 feet, but the passes through the chain consist of deep and rugged defiles. Some of the detached mountains of Asia Minor are of greater height: *Mount Argæus*, on the interior plateau, is upwards of 13,000 feet, and *Mount Olympus*, in the north-west part of the peninsula, reaches 9000 feet in height. *Mount Ida*, farther west and beside the shore of the Archipelago, is nearly 5000 feet.

RIVERS.—The largest river of Asia Minor is the *Kizil-Irmak* (ancient Halys), which flows into the Black Sea. Among numerous others, the principal are the *Sangarius* (also flowing into the Black Sea); with the *Caicus*, *Hermus*, *Caystrus*, and *Mæander*,¹ which flow into the Archipelago.

Lakes.—The largest is the saltwater lake of *Koj-hissar*, situated on the interior tableland. There are, besides, several of smaller size, most of them without any outlet to the sea. They receive many of the smaller streams by which the high plains of the interior are watered.

II. SYRIA.

SYRIA extends along the coast of the Mediterranean, from the Gulf of Scanderoon southward to the border of Egypt. It comprehends a mountain-region in the immediate neighbourhood of the coast, and a desert plain in the interior. This desert reaches east to the banks of the Euphrates. The south-westerly portion of Syria is the *Palestine* of sacred history.

COASTS.—From El-arish, on the Egyptian frontier, to Beyrout the coast is regular, the only inlet being the small Bay of Acre. Thence north to Cape Khansair it is bolder and more broken.

CAPES.—The two chief headlands on the Syrian coast are *Cape Khansair* and *Cape Carmel*. The former of them marks the southern limit of the Gulf of Scanderoon; Cape Carmel is on the south side of the Bay of Acre.

MOUNTAINS.—The mountains of Syria consist principally of two chains, which stretch in the direction of north and south, parallel to a large portion of the coast. These constitute the *Mount Lebanon* of the Bible, and were known to the Greeks and Romans by the names of Libanus and Anti-Libanus—the former being the chain nearer the coast, and the other the more inland chain. Between the two is a narrow valley, the *Cœle-Syria* (i.e., Hollow Syria) of classical geography. The higher summits of the Lebanon system are between nine and ten thousand feet in altitude. *Jebel-esh-Sheikh*² (the Mount Hermon of Scripture) reaches an altitude of 8700 feet, and its summit is covered with snow during the greater part the year.

The chains of Mount Lebanon do not reach the entire length of the Syrian coast. To the southward of Mount Hermon the country consists of a high plateau, intersected by a deep ravine in the direction of north and south, and declining on the west towards the Mediterranean. This ravine forms the bed of the river Jordan and the Dead Sea.

¹ These are properly the ancient names—those by which the rivers are known in classic geography and story. They are more familiar than the modern Turkish names:—*Sakaria* (Sangarius), *Bakhtir Chai* (Caicus), *Grâis Chai* (Hermus), *Kuchouk Menderes* (*Caystrus*), *Menderes Chai* (*Mæander*).

² That is, Mountain of the Old Man. The word *Jebel* is the common Arabic term for mountain. *Sheikh* is the name given to the head of an Arabic tribe or family—commonly an old man. Other common Arabic terms are:—*ras*, cape; *naâr*, river; *bahr*, lake; and *wady*, a water-course.

In the northwardly portion of Syria there is also a long valley, which lies between the mountain-chain that borders the coast and a more inland range. The river *Orontes* flows through this valley.

The valley of the *Orontes*, the plain between the parallel chains of Libanus and Anti-Libanus, and the valley of the Jordan form together a long and nearly continuous depression, which runs through the whole length of Syria in the direction of north and south. The valley of the Jordan and the bed of the Dead Sea are the deepest part of this depression, which sinks considerably below the average level of the earth's surface.

RIVERS.—The two chief rivers of Syria are the *Orontes* and the *Jordan*. The former has a northwardly course, and enters the Mediterranean; the latter flows to the southward, and falls into the Dead Sea after an extremely tortuous course.

1. The *Orontes* (Nahr-el-Ahsy) rises in the upper portion of the valley of Cole-Syria, between the Libanus and Anti-Libanus, and flows north as far as Antakia (Antioch), where it curves west, finally entering the Mediterranean near the port of Suedia (Seleucia).

2. The *Jordan* rises on the slopes of Mount Hermon, and flows through Lakes Merom and Tiberias to the Dead Sea. The direct length of the depression through which it flows, from Lake Tiberias to the Dead Sea, is only 70 miles, but the course of the river is so tortuous that it exceeds 200 miles between the same points. The current of the Jordan is very swift, and there are numerous rapids, which render it unnavigable.

LAKES.—The principal are the *Dead Sea* and the *Lake of Tiberias*.

1. The *Lake of Tiberias*¹ is a body of fresh water: the river Jordan passes through it, and flows thence onward to the Dead Sea. The valley of the Jordan is intensely hot, owing to its great depression below the country upon either side.

2. The *Dead Sea*² consists of water which is intensely salt³—so much so as to render it unfit (as the name implies) for the support of animal life. No fish exist in its bitter and heavy waters, and the aspect of the surrounding tract of country is arid, desolate, and almost lifeless. The surface of the Dead Sea is nearly 1300 feet lower than the level of the Mediterranean.

III. COUNTRIES ON THE EUPHRATES AND TIGRIS.

These comprehend a high tableland—the plateau of Armenia—in which the rivers have their origin, and an extensive lowland plain through which they afterwards flow on their way to the Persian Gulf.

MOUNTAINS.—The plateau of Armenia lies at an elevation of 6000 feet above the sea, and the mountains by which it is crossed reach 4000 feet and upwards above its level—so that their summits are more than 10,000 feet above the sea.

Plains.—Below the mountain-region, to the south-eastward, are the plains of Al-jezireh and Irak-Arabi, through which the Euphrates and Tigris flow. The plain of Al-jezireh (which coincides with the ancient *Mesopotamia*) is enclosed between the rivers, which are there at a wide distance apart. The plain of Irak-Arabi, farther to the south-east, and at a lower level, corresponds to the ancient *Babylonia*.

¹ Also called the "Sea of Galilee," "Sea of Gennesaret," and the "Sea of Chinnereth." The Turkish name is "*Bahr Tubaryich*," the "*Sea of Tiberias*."

² Known to the ancients as *Lake Asphaltis*, from the *asphalt* or bitumen which

floats on its waters. The modern Turkish name is *Bahr Lüt*, the "*Sea of Lot*."

³ The proportion of saline ingredients is about 25 per cent., that is, seven times the usual proportion of salts in the waters of the ocean (3 or 4 per cent.).

RIVERS.—The *Euphrates* and *Tigris* are the chief rivers of this region. The Euphrates, which is 1700 miles long, is the most considerable river of western Asia. The Tigris joins the Euphrates about 100 miles above the Persian Gulf; the united stream bears locally the name of *Shat-el-Arab*, or river of the Arabs.

1. The *Euphrates* is formed by the junction of two streams, one of which rises in the Soghanly Mountains, and the other in the Armenian Mountains near Bayazid. Breaking through the Taurus chain it flows through the broad plain of Irak-Arabi, in a generally south-easterly direction to Kurnah, where it is joined by the Tigris. The only large tributary is the *Khabour*, which flows from the Karajah Tagh, and joins the Euphrates at Kerkisayah. This great river is historically famous from the fact that on its banks stood Babylon, the capital of the old Assyrian Empire. It is navigable for river steamers for 1100 miles.

2. The *Tigris* rises in the highlands of the vilayet of Diarbekir, and near Mosul enters the plain, through which it flows south-east to Kurnah, where it joins the Euphrates. The principal tributaries are the *Great and Little Zab* and the *Diyalah*, both on the left bank. At Bagdad the Tigris bends to within 20 miles of the Euphrates.

Lakes.—*Lake Van* is within the Turkish portion of the Armenian plateau. It is about 80 miles long and 30 broad, and lies at an elevation of more than 5000 feet above the sea. A few rivers flow into it from the adjacent highlands, but it has no outlet, and consequently its waters are salt.

CLIMATE.—The climate of Asiatic Turkey is for the most part warm, but is greatly varied by the inequalities of elevation and physical aspect which distinguish its different regions.

The winters of the Armenian tableland are excessively severe, and the heat of summer is equally great. The interior of Asia Minor exhibits like differences of temperature, though in more moderate degree. The coast regions of Syria and Asia Minor have generally a warm and delightful climate. The seasons of rain and drought are of regular recurrence, and the operations of agriculture are of necessity regulated by them.¹

PRODUCTIONS.—Among the vegetable productions of Turkey in Asia are a variety of rich fruits and other valuable plants. The *vine* grows luxuriantly in the watered valleys, and the *date-palm* flourishes on the borders of the desert. *Wheat*, *barley*, *rice*, and *maize*, with *tobacco*, *hemp*, and *flax*, are articles of culture. The mineral produce includes *coal* (found on the north coast of Asia Minor, and also on the slopes of the Lebanon, upon the Syrian coast), together with ores of *iron*, *lead*, *copper*, and other useful metals.

INHABITANTS.—In 1879 the population of Turkey in Asia was estimated to amount to 15,715,000, an average of only 22 persons to the square mile.²

Race and Language.—The inhabitants of Asiatic Turkey form a motley assemblage of various nations, comprising—besides Turks, the ruling people—Greeks, Syrians, Jews, Arabs, Armenians, Turkomans, Kurds, Druses, and many other tribes of mountaineers. The Turks themselves are relatively

¹ In Palestine (which is part of Syria) the winter months are the season of the most abundant rains. Then a short period of dry weather ensues, followed by a further

season of rain. After this a long dry season succeeds, lasting from the middle of April to the end of September.

² In England the average is 422.

more numerous in Asiatic Turkey than in the European provinces of the empire, and constitute a majority of the whole. The official language is, of course, the Turkish, but it has never supplanted any of the numerous languages in common use among the various nations. In fact, so great is the diversity of race, language, and religion, of the peoples of Asia Minor that, although at present politically united, it seems improbable that they will ever fuse into one nation.

Religion.—Of an estimated population of 15,715,000, 13,068,000 are Mohammedans;¹ the Greeks and Armenians profess Christianity,² and there are about 200,000 Jews.

INDUSTRY.—The pursuits of industry are generally at a low ebb. The bulk of the population are engaged in agriculture, which, however, is pursued in a very inefficient manner, and scanty harvests are of frequent occurrence. Some manufactures of silk and cotton fabrics, leather, and various articles of an ornamental description are carried on in the larger towns. The Turkey carpets are woven by the women of the Turkoman tribes, in the interior of Asia Minor.

Commerce.—The amount of foreign trade is considerable. It is carried on chiefly with Britain and other European countries, from various ports upon the coasts of Asia Minor and Syria; and with the countries to the eastward of Turkey by means of caravans which cross the Syrian and Arabian deserts. *Smyrna*, on the coast of the Archipelago; *Trebizond*, on the Black Sea; and *Beyrout*, on the Syrian coast, are the principal seats of maritime trade. The cities of *Aleppo*, *Damascus*, *Bagdad*, *Bassorah*, and *Erzeroum* are the chief centres of the caravan traffic.

Internal Communication.—Very defective; scarcely any good roads. Internal trade carried on mostly by caravans. Only two lines of railway, *Smyrna* to *Aidin*, 145 miles long, and *Scutari* to *Ismid*, 27 miles. Nearly 18,000 miles of telegraphic communication.

GOVERNMENT.—Asiatic Turkey is under the same general government as Turkey in Europe. The Sultan, resident at Constantinople, delegates authority to the various pashas, who exercise nearly absolute rule in the different provinces.

A "Convention of defensive alliance between Great Britain and Turkey" was signed on June 4, 1878, by which Asiatic Turkey was placed under British protection: the British government being thus bound to defend it against invasion, if necessary, "by force of arms." The Sultan, in return, promised to "introduce necessary reforms, to be agreed upon later between the two powers, into the government, and for the protection of the Christian and other subjects of the Porte in these territories, and in order to enable England to make necessary provision for executing her engagements, his imperial majesty the Sultan further consents to assign the island of Cyprus to be occupied and administered by England."

DIVISIONS.—The whole of Asiatic Turkey is divided into *vilayets* or pashalics, each under the government of a pasha. Each vilayet is divided into *sanzaks* or provinces, which are subdivided into *kazas* or districts.

For convenience of description, the vilayets and towns of Asiatic Turkey are arranged under the three great divisions of *Asia Minor* in the north and west, *Syria* in the south, and the *Countries on the Euphrates and Tigris* in the east.

¹ Of the Sunnite sect.

² About 500,000 Syrians also profess Christianity. On Mount Lebanon are the semi-independent *Maronites*, a Christian sect founded in the fifth century, and the *Druses*,

a fanatical tribe professing a peculiar form of Mohammedanism. In 1860 the Druses massacred 12,000 Maronite Christians, and destroyed most of their villages and churches.

ASIA MINOR comprehends nine vilayets or governments. These, with their chief towns, are shown in the following table :—

Vilayets.	Chief Towns.	Other Towns.
BRUSA, ...	Brusa, ...	Ismid, Scutari.
AIDIN, ...	Smyrna, ...	Aidin, Manissa.
ARCHIPELAGO, ...	Rhodes, ...	Vashy, Mitylene.
KASTAMUNI, ...	Kastamuni, ...	Sinope, Boli.
ANGORA, ...	Angora, ...	Cæsarea.
ADANA, ...	Adana, ...	Tarsus, Marash.
KONIYEH, ...	Koniyeh, ...	Adalia, Nigdeh.
SIVAS, ...	Sivas, ...	Tokat, Amasia.
TREBIZOND, ...	Trebizond, ...	Rizeh, Tereboli.

SMYRNA (*population*, 150,000) is the largest city of Asia Minor and a chief emporium for the trade of the Levant.¹ The population comprises an unusual number of Greeks and other Europeans, by whom its extensive commerce is carried on. Smyrna derives interest from its antiquity; it existed many centuries before the Christian era, and was one of the most famous cities of Ionia. It has also the distinction of being one of the Seven Churches of the Apocalypse.

Brusa (*population*, 60,000), the ancient Prusa of Bithynia, lies at the foot of Mount Olympus; not far to the eastward are the small towns of **Isnik** (the ancient Nicæa), and **Ismid**, the Nicomedia of ancient story. The latter place lies at the head of an arm of the Sea of Marmora. Both **Kutayah** (*population*, 50,000) and **Angora** (*population*, 40,000), (ancient Ancyra), are inland cities, the latter famous for the breed of goats, with fine silky hair, that are reared in its neighbourhood. Angora, like so many other among the cities of western Asia, has also historic fame. **Sinope**² is a seaport on the Black Sea, about the middle of the coast-line which forms the northern side of the peninsula. **Sivas** (*population*, 30,000), the chief place in the vilayet of the same name, lies near the upper course of the Kizil-Irmak or Halys, a river which once formed the limit between the empires of Lydia and Media. **Trebizond** (*population*, 25,000), the Trapezus of classic story, is a flourishing seaport, and possesses the chief part of the commerce of the Euxine.³ **Koniyeh** (*population*, 30,000), on the interior plains within the southern division of the peninsula, is chiefly interesting as representing the ancient Iconium, familiar in connection with the history of St. Paul. **Kaisariyeh** (*population*, 30,000), the ancient Cæsarea of Cappadocia, and a place of considerable trade, lies at the base of Mount Argeus. **Adana** and **Tarsus**—the former on the river Syhoon (ancient Sarus), the latter on the little stream of the Cydnus—lie in the Cilician plain to the south of the Taurus. Tarsus is distinguished as the birthplace of the Apostle Paul. **Marash** is farther to the north-east, near the river Jyhoon, the Pyramus of ancient geography.

¹ The eastern part of the Mediterranean is commonly called the *Levant*. The name is Italian in its origin, and signifies the East.

² Turkish fleet destroyed, 1853.

³ That is, the Black Sea—*Pontus Euxinus* of ancient geography, whence the name of Euxine is often given to it.

Nearly every part of Asia Minor (and indeed of western Asia in general) exhibits remains of antiquity; its plains and hillsides, its rivers and mountain-passes are richly stored with historic associations, and its towns—now often in ruins—display the abundant traces of former splendour. Troy stood in the north-western corner of this peninsula; Smyrna, Ephesus, Miletus, and other famous cities of Ionia were on its western shores; Sardis, Philadelphia, Laodicea, Nicæa, Angora, Iconium, Cæsarea, upon its interior plains. The invincible phalanx of the Macedonian conqueror,¹ in ancient times, and the armies of the Crusaders, in a more recent period, have marched through its plains, and the footsteps of Christian apostles have imparted sanctity to its soil.

SYRIA embraces, in modern geography, the three vilayets of Aleppo, Lebanon, and Syria, each of which is governed by a vali or pasha.² Its south-westerly portion corresponds to the ancient Palestine—the allotted inheritance of the Jewish nation, and the “Holy Land” of the Christian:—

Vilayets.	Chief Towns.	Other Towns.
ALEPPO, . . .	Aleppo, . . .	Scanderoon, Antakia.
LEBANON, . . .	Deir-el-Kamr, . . .	Latakia, Tripoli.
SYRIA, . . .	Damascus, Beyrout, . . .	Jerusalem, Acre, Jaffa.

The chief cities of modern Syria are Damascus, Aleppo, Homs, Hamah, Antioch, Jerusalem, Nablous, and Tiberias—all of them inland; with Beyrout, Tripoli, Latakia, Sidon, Tyre, Acre, Jaffa, and Gaza, which are on or near the coast. Jerusalem, Nablous, Tiberias, Jaffa, and Gaza fall within the former limits of the Holy Land.

DAMASCUS³ (*population*, 150,000) is now the largest city of Syria, and a great centre of caravan trade. It stands in a fertile plain at the foot of the range of Anti-Libanus, and beside the little stream of the Barada, the Abana of Scripture (2 Kings v. 12).

Aleppo (*population*, 100,000), in northern Syria, was formerly more populous, but it has been repeatedly injured by earthquakes,⁴ to which every part of Syria is more or less liable. Homs and Hamah are both within the valley of the Orontes, the chief river of northern Syria. Hamah corresponds to the Hamath of Scripture. The most famous locality within the valley of the Orontes is Antakia or Antioch—no longer the magnificent city of a former age, but a small provincial town. It stands a few miles above the mouth of the Orontes, on the southern banks of the river. **Scanderoon**,⁵ the most northerly of the Syrian coast-towns, stands

¹ Alexander the Great.

² There are also the second-class pashalics of Janik, Divriki, and Jerusalem. Lebanon and the island of Samos are under Christian governors, the rest under Turkish pashas.

³ Damascus, Turk. *Dimeskt*; the fabric known as *damest* was first made in, and takes its name from, this town.

⁴ In that of 1822, upwards of 9000 persons perished.

⁵ The name Scanderoon—or, properly, Iskenderoon—is derived from that of Alexander, known as “Iskender” in modern oriental story and tradition. The name of the great Macedonian is extensively diffused through western Asia.

on the shore of the gulf called by its name, and serves as the port of Aleppo. **Latakia** (the ancient Laodicea, but now chiefly noted for the tobacco grown in its vicinity) is to the south of the Orontes. **Tripoli** and **Beyrout** follow in the same direction. **Beyrout** (*population*, 40,000) constitutes the port of Damascus, and has become, within recent years, the chief seat of Syrian commerce. To the south of Beyrout are **Saida** (the ancient Sidon); **Soor** (the Tyre of antiquity); and **Acre**, the **Accho** or **Ptolemais** of Scripture, and the **St. Jean d'Acre** of the Crusaders: all three are now comparatively small places, but Acre is a strong fortress. The Bay of Acre is bounded on the south by the promontory of Carmel, which is within the limits of the Holy Land.

The most important locality in Palestine is **JERSUALEM**¹ (*population*, 16,000), which stands on a rocky platform—enclosed on three sides by deep ravines—about midway between the Mediterranean and Dead Seas. Jerusalem, consecrated by our Saviour's sufferings, is now only a Turkish provincial town, of moderate size. In 1841 it was made the seat of a Christian bishopric.

Bethlehem, the scene of our Lord's nativity, is a village lying a few miles south of Jerusalem. **Hebron** is farther south. **Jaffa** (*population*, 7000), on the coast, is the port of Jerusalem, and a place of some trade. It represents the ancient Joppa. **Nablous**—the Shechem of Scripture and Neapolis of the Greek writers—is to the north of Jerusalem, midway between the Mediterranean coast and the valley of the Jordan. **Nazareth** is farther north, and only five miles distant from the base of Mount Tabor, which rises in conical form above the fertile valley of Esdraelon. **Tiberias** is a small city lying on the western shore of the beautiful lake of Tiberias, or Sea of Galilee. **Gaza**, in the south-west of Palestine, is of some commercial importance, derived from its position on the line of route between Syria and Egypt. It occupies the same site as the ancient Gaza, one of the chief cities of the Philistines.

Among the numerous remains of former greatness which belong to Syria, two sites command special notice on account of their architectural beauty. These are **Baalbek** and **Palmyra**. The former lies to the north-west of Damascus, in the valley which is enclosed between the parallel chains of Libanus and Anti-Libanus; it represents the ancient city of Heliopolis, and still exhibits the remains of its magnificent temples. **Palmyra**, the **Tadmor** of Scripture, is to the north-eastward of Damascus, within a small oasis in the heart of the Syrian desert. It has the beautiful remains of an ancient temple of the sun. The desert which borders the highlands of Syria to the eastward, and which stretches thence to the banks of the Euphrates, exhibits features which differ in some essential particulars from those that are commonly associated with the idea of the wilderness. It has no perennial streams, and hence, during the summer and autumn months, when it is parched by the sun's burning rays, exhibits an arid and comparatively lifeless surface, excepting only where an occasional spring of water creates a surrounding oasis. But at other seasons, when the rains of winter and early spring refresh the thirsty ground, the desert becomes a carpet of verdure, strewn with wild flowers of the most brilliant hue. This is the "glory of the wilderness," destined to pass away with the returning heat of summer.

¹ Jerusalem was wrested by David from the Jebusites in B.C. 1049, and was taken by Nebuchadnezzar three times (B.C. 605, 598, 588). The city was besieged and taken by the Romans under Titus A.D. 70—surren-

dered to the Saracens 637—stormed and taken by the Crusaders under Godfrey of Bouillon, 1099—recaptured by Saladin, 1187—finally taken in 1517 (and since retained) by the Ottomans or Turks

The COUNTRIES ON THE EUPHRATES AND TIGRIS comprehend the following vilayets and towns :—

Vilayets.	Chief Towns.	Other Towns.
ERZEROU, . . .	Erzeroum, ...	Erzingan.
VAN, ...	Van, ...	Malatia.
DIARBEEKIR, ...	Diarbekir, ...	Mush, Mosul.
BAGDAD, ...	Bagdad, ...	Mensoreah.
BASRA, ...	Basra, ...	Kurnah.

The first three of these vilayets belong physically to the high tableland of Armenia. The last two on the list embrace the valleys of the Euphrates and Tigris below the mountain-region. The country known as Kurdistan lies between Turkey and Persia, and consists principally of rugged mountain-chains, with intervening valleys.

The city of **Erzeroum** (*population*, 30,000) stands near the source of the more northwardly of the two arms of the Euphrates, on a high plain, 6000 feet above the sea. **Kars**, noted for its gallant defence in 1855 and 1877, lies to the north-east of Erzeroum. Along with Ardahan and Batoum, it was ceded to Russia in 1878. **Bayazid** is near the base of Mount Ararat. The town of **Van** (*population*, 15,000) stands on the east shore of the extensive lake called by its name. **Bitlis**, the most considerable place in Kurdistan, is not far from the south-western shore of the Lake of Van, on a stream which joins the Tigris. **Diarbekir** (the ancient Amida) is on the Tigris, forty miles below its source. The city of **Orfah** (*population*, 20,000), the Edessa of the Crusaders, lies within the plain of Al-jezireh, below the mountain-region. This plain coincides with the Mesopotamia¹ of Greek geography, and the Padan-Aram, or Aram-Naharaim, of the early Scripture history. **Mosul**² (*population*, 40,000), on the right or western bank of the Tigris, is chiefly noteworthy from its proximity to the remains of Nineveh, on the opposite bank of this river. **Bagdad**³ (*population*, 60,000), on the Tigris, is the great city of this region—superior in size and population to any other city in the eastern division of Asiatic Turkey. **Basra**, or **Bassora** (*population*, 40,000)—formerly of much note as a commercial city, but greatly declined within recent years—lies on the Euphrates, below the junction of the Tigris.

The plain of Irak-Arabi (as the lower portion of the region watered by the Euphrates and Tigris is called) is the Babylonia of ancient geography. It is now a marshy tract, even more thinly peopled than other parts of Asiatic Turkey, and the sands of the adjoining desert press closely upon the river's western bank. But every portion of the plain exhibits remains of former population and culture.

¹ That is, "in the middle of the rivers"—the Euphrates and Tigris. Aram-Naharaim (Syria-between-the-Rivers) has the same meaning in Hebrew.

² The fine cotton cloth called *Muslin* was originally manufactured at Mosul, hence the name.

³ Founded, 762. Taken by Tamerlane, 1401.

Among the many ancient sites which belong to the lands watered by the Euphrates and Tigris, two attract especial notice. These are Nineveh and Babylon, the former capitals of the Assyrian Empire. The remains of Nineveh are found upon the east bank of the Tigris, opposite the modern city of Mosul. The ruins of Babylon lie upon either bank of the Euphrates, in the neighbourhood of the small modern town of Hillah (to the south of Bagdad). The treasures of ancient art brought within recent years from the site of Nineveh have enriched our museums. The remains of Babylon have not yet been fully explored.

QUESTIONS ON TURKEY IN ASIA.

1. How is Turkey in Asia bounded?
2. What three great divisions does Turkey in Asia embrace? Point to each upon the map.
3. What straits and sea divide Asia Minor from the European continent?
4. What islands adjoin the western and southern shores of Asia Minor?
5. What kind of country (as to physical features) is the interior of Asia Minor?
6. In what part of Asia Minor are Mounts Argæus, Olympus, and Ida?
7. Name the principal rivers of Asia Minor, and the seas into which they flow.
8. Point out upon the map the limits of Syria in the direction of north, south, and east.
9. What mountain-region adjoins the coast of Syria, and what is the name of the highest summit?
10. What two rivers flow through the long valley which stretches through Syria?
11. Name and point out upon the map the two principal lakes that belong to the valley of the Jordan.
12. What kind of region do the rivers Euphrates and Tigris water?
13. What lake is within the Turkish portion of Armenia?
14. State what you know concerning the climate of Turkey in Asia.
15. Mention some of the fruits and other plants that are among the productions of Asiatic Turkey.
16. In what parts of Turkey in Asia is coal found? What other metals occur?
17. What other races besides Turks form part of the population?
18. What three cities are the chief seats of the maritime commerce of Turkey in Asia? What three of its inland trade?
19. How is Turkey in Asia divided? How many of these divisions are within Asia Minor?
20. In what part of Asia Minor are the following places:—Smyna, Brusa, Koni-yeh, Trebizond, and Adana? Find out their places on the map.
21. With what ancient cities do Brusa, Koni-yeh, Isnik, Izmid, Angora, and *Kaisariyeh* correspond?
22. On what river does Sivas stand, and what empires did it divide?
23. Point out Tarsus on the map. By what is Tarsus distinguished, and on what river does it stand?
24. Mention some of the great cities of antiquity that were situated within Asia Minor.
25. What portion of Syria corresponds to Palestine or the Holy Land? Point to this part on the map.
26. Name some of the chief inland cities of Syria, pointing out their places on the map. Which amongst them are within Palestine?
27. Name the chief maritime cities of Syria.
28. On what river does Damascus stand? By what name is this river referred to in Scripture?
29. On what river does Antioch stand? What other towns are within the valley of the same stream?
30. To what ancient cities do the modern towns of Latakia, Saida, Soor, and Acre correspond?
31. What kind of site does Jerusalem occupy?
32. Where are Bethlehem, Hebron, Nazareth, Tiberias, and Gaza? Point them out upon the map.
33. Where is the town of Nablous? What ancient city does it represent?
34. Where are Baalbek and Palmyra? For what are they distinguished?
35. What are the general features of the Syrian desert?
36. Where is Kurdistan, and what kind of a country is it?
37. Where are Erzeroum, Kars, Bayasid, Van, and Diarbekir?
38. Where are Orfah and Mosul? To what city of a former period does Orfah correspond?
39. Where are the plains of Al-jezirah and Irak-Arabi? By what names were they formerly known?
40. Where are Bagdad and Basra? For what is Bagdad noteworthy?
41. What two great cities of antiquity, now in ruins, belong to the region of the Euphrates and Tigris?

ARABIA.

ARABIA¹ is a large country in the south-west of Asia, and forms the most westerly of the three vast peninsulas of southern Asia.

BOUNDARIES.—Arabia is bounded on the *north* by Turkey in Asia, on the *west* by the Red Sea, on the *south* by the Gulf of Aden and the Arabian Sea, and on the *east* by the Gulf of Oman and the Persian Gulf.

EXTENT.—Its *area* is estimated at 1,200,000 square miles, or about twenty times greater than that of England and Wales.

A straight line from the head of the Gulf of Akaba to Ras-el-Hadd measures about 1650 miles. The distance from Mocha on the Red Sea to Muscat on the Gulf of Oman is about 1250 miles. In the north the peninsula narrows to about 800 miles between Makna, on the Gulf of Akaba, and Koweit (Korein), near the head of the Persian Gulf.

COASTS.—(1.) The *Red Sea*, which forms the western limit of Arabia, divides, at its northern extremity, into two gulfs. The more westerly of these is called the Gulf of Suez; the more eastwardly, the Gulf of Akaba. The tract enclosed between them is the Sinai peninsula. The shores of the Red Sea are lined by coral reefs, which make the navigation dangerous; but its mid-channel is open and deep. The *Strait of Bab-el-Mandeb* connects the Red Sea with the Gulf of Aden and the Indian Ocean. (2.) The *Persian Gulf* has on its western side an extensive submarine bank, upon which the pearl-fishery is pursued. The *Strait of Ormuz* connects the Persian Gulf with the Gulf of Oman, which opens into the Indian Ocean.

NATURAL FEATURES.—Arabia has mountain-chains lying in a parallel direction to its seaward borders—west, south, and east—and there are also some high ranges upon the interior plateau.

1. Of the coast-mountains the most important are those which nearly fill the small peninsula of Sinai. The highest peak of the Sinai mountains reaches 9300 above the sea. A minor chain also skirts the south coast, and from Aden on the west to the highlands of the Oman in the south-east of the peninsula. In Oman the principal range, *Jebel Akhdar*, attains an elevation of 9900 feet above the sea.

2. The interior plateau includes a series of high and desert plains, destitute of perennial streams, but generally adapted for pasturage. This central tableland is known as the *Nejd*,² and culminates in the *Jebel Toveyk*³ range, which has an average height of 3000 feet above the sea. The highlands of Nejd proper are bounded on the north

¹ Called by the Arabs "Jezereet El-'Arab," the peninsula of the Arabs.

² Sir Henry Rawlinson, during the discussion on Mr. Blunt's account of his visit to Central Arabia in the winter of 1879-80, remarked that "*Nejd* was a name belonging to physical geography, simply meaning a highland, and in all historical geography was

applied to the great plateau of central Arabia, which was elevated and surrounded on all sides by desert. *Jaf* meant the lowland, from an Arabic root signifying hollow, and was constantly contrasted with the *Nejd* or the highland."—*Proceedings of the Royal Geographical Society*, p. 101, vol. II, 1880.
³ i.e., the twisted mountain.

by a narrow neck of the *Nefud* or Sandy Desert, beyond which lies the minor plateau of *Jebel Shomer*, which is crossed by two ranges, the *Jebel Aja* and *Jebel Selma*. The highest point in the former is supposed to be about 6000 feet above the sea. A much greater expanse of desert lies between *Jebel Shomer* and the fertile and well-peopled oasis of *Jof* or *Jowf*.

3. The Arabian Desert presents for the most part a gravelly or sandy surface, but is in some places covered with high and barren masses of hill, forming a rocky or stony wilderness. This is the case in the north-western portion of the country—including the Sinai peninsula and the adjacent tract towards the border of Syria—which forms the Arabia Petraea¹ (*i.e.*, the Rocky Arabia) of ancient geography. But the *Nefud* or Sandy Desert, between *Jof* and *Nejd*, is not, as generally supposed, destitute of vegetation; on the contrary, "not only are the hollows well clothed with grass, but also every part of the plain."²

A low and narrow plain—called the *Tehama*—stretches round the coast of the Arabian peninsula, between the sea and the adjacent mountain-region. This plain is arid, destitute of water, and intensely hot.

Arabia has neither *rivers* nor *lakes*. There are numerous water-courses—that is, beds of streams—which become rapid torrents during the season of rain, but are dry for the greater part of the year.

CLIMATE.—The climate of Arabia is hot and dry, excepting, perhaps, in the higher parts of the mountain-regions, towards the coast. The narrow belt of the *Tehama* is intensely hot and arid, even more so on the side of the Persian Gulf than on the other coasts of the peninsula. Rain very seldom falls in this region.

Contrary to the generally received opinion that the *Nefud* or Sandy Desert of the interior was periodically swept by the pestilential simoom, Mr. Blunt states that while "sand storms were common but not dangerous to travellers, the simoom was not even known by name," and that his guide "denied positively that such a phenomenon had occurred within his forty years' experience."

PRODUCTIONS.—The only parts of Arabia that possess natural fertility are found within the mountain-region chiefly towards the south-western borders of the peninsula. Rain is here more frequent, and there are perennial springs. This was accordingly distinguished by the ancients as Arabia Felix or the Happy Arabia.

The *vine*, *fig*, *peach*, *almond*, and many other fruits flourish in this region, and the *coffee-shrub* is abundantly cultivated. The *date-palm* also flourishes there, and is found, besides, in every oasis of the Arabian Desert.

INHABITANTS.—Arabia is supposed to have not less than 12,000,000 inhabitants, but nothing certain is known on this head.

There is a characteristic difference between the Arabs of the desert, who dwell in *tents* and wander from one place to another, and the *dwellers* in

¹ Greek *petra*, a rock. The ancients divided Arabia into *Arabia Petraea*, or the Rocky, in the north-west; *Arabia Felix*, or the Happy, in the south-west; and *Arabia Deserta*, or the Desert, in the centre.

² This plain is dotted with hundreds of deep horseshoe-like hollows, which differ only in size, and whose origin is as yet inexplicable, as they cannot be referred to the action of water or wind. (W. S. Blunt.)

towns, who have fixed places of abode. The Arabs of the desert are called Bedouins, and their way of life naturally leads to numerous points of difference between them and the dwellers in fixed habitations. Their wealth consists in their flocks and herds—sheep, goats, camels, and horses. They look with contempt on the dwellers in towns, and the sense of freedom which accompanies existence in the wilderness compensates for the many deprivations which such a way of life involves. Even in the desert, however, there are recognised limits to the different tribes beyond which they never pass.

Religion.—By far the greater majority of the Arabs profess *Mohammedanism*; and the region of the El-Hejaz, bordering on the Red Sea, is indeed the Holy Land of the Mohammedans as it contains Mecca, the birthplace, and Medina, the burialplace, of Mohammed. The people of Nejd belong to the Wahabee sect, founded about 130 years ago by Mohammedan reformers, who sought to restore their religion to its original purity by following the strict letter of the Koran.

INDUSTRY.—There is little of manufacturing industry in Arabia, but the trade which passes through parts of the country is considerable. This is wholly carried on by *caravans*—that is, companies of persons who associate together for mutual protection in crossing the wilderness, consisting of merchants, guides, soldiers, pilgrims, and various followers, with their camels and horses.

The camel is uniformly employed as the beast of burden, and that animal is peculiarly suited to the passage of the arid wastes of western and central Asia. The caravan traversing the Arabian or the Syrian Desert, with its attendant train of camels, is the earliest and most enduring of the pictures of Oriental life, and all its essential features are the same now that they were upwards of three thousand years since.¹

GOVERNMENT.—The people of Arabia have been from the earliest ages divided into tribes, the government of which is patriarchal; that is, the head of each tribe—or *sheikh*, as he is termed—occupies, in regard to its members, the place of the father of a family. The laws, customs, and institutions of Arabia all proceed upon this assumption of patriarchal authority—the only mode of government suited to the dwellers in the wilderness.

Arabia has, consequently, never been subject, as a whole, to any single power. Until recently the Emir of the Wahabees was the most powerful of the native rulers; but at present (1881) the Wahabee empire of *Nejd* is almost at an end, and the supreme power in central Arabia has passed into the hands of the Emir of *Jebel Shomer*, who has already annexed Jof and other towns formerly under the Wahabee ruler. The whole of *Oman* is still nominally subject to the Sultan of Muscat. The country between the south and the desert, known as *Hadramaut*, is occupied by independent Bedouin tribes, who own no sovereignty but that of their own chiefs. The region of *El-Hejaz* is nominally subject to the Sultan of Turkey, who is represented by an officer (styled the *Shereef*) resident at Mecca. *Yemen* forms one of the Turkish vilayets. *El-Hassa*, the recently-conquered district bordering on the Persian Gulf, is styled by the Turks, "our vilayet of Nejd," but the Turks have no influence whatever over any of the tribes of central Arabia, although the Emirs of Riad and Jebel Shomer pay a nominal tribute as an acknowledgment of the suzerainty of the Sultan. The *Sinai region* falls within the dominions of the Khedive of Egypt.

¹ See Genesis xxxvii. 25.

DIVISIONS and TOWNS.—At the present time (1881) Arabia is politically divided into eight territories, of which *El-Hejaz*, *Yemen*, and *El-Hassa* are subject to the Sultan of Turkey; the *Sinai* peninsula, included within the Egyptian dominions; *Hadramaut*, occupied by independent Bedouin tribes; *Oman*, subdivided into eight provinces, each really independent, but nominally subject to the Sultan of Muscat; *Nejd*, comprising the districts still under the Wahabee ruler of Riad, and the recently established sultanate of *Jebel Shomer*, the most powerful of the native states of Arabia.

Divisions.	Chief Towns.	Divisions.	Chief Towns.
Sinai Region, .	Tor, Akaba.	Hadramaut, .	Makalla, Shehr.
El-Hejaz, . .	Mecca, Medina.	Oman, . . .	Muscat.
Yemen, . . .	Sana, Mocha, Aden.	Nejd, . . .	Riad.
El-Hassa, . .	Koweit.	Jebel Shomer, .	Hail.

The Sinai mountain-region, situate at the head of the Red Sea, fills the small peninsula between the Gulfs of Suez and Akaba, and the high grounds which it comprises stretch thence to the southern borders of Syria. Wandering Arabs or Bedouins are almost the sole inhabitants of the entire region, which is a wilderness of rocks and mountains, alternating with arid plains and gravelly beds of torrents, destitute of running water during three-fourths of the year. This region was the scene of the forty years' wandering of the Israelites. *Mount Sinai*, whence the law was delivered to the assembled tribes, is found among the central and highest cluster of mountains, in the very heart of the peninsula.

A long valley stretches northward from the head of the Gulf of Akaba to the southern limits of the Dead Sea, in the same general direction as the depression which reaches through the whole length of Syria. The mountains which border this valley on its eastern side are the *Mount Seir* of the Bible, and one of them coincides with *Mount Hor*, the scene of the prophet Aaron's death. The ancient city of *Petra*—now marked by the numerous tombs cut in the solid rock—is found within a deep recess in the heart of the mountains near the eastern foot of Mount Hor.

The region of El-Hejaz is the Holy Land of the Mohammedans. It includes the cities of *Mecca* and *Medina*¹—the former the birthplace, and the latter the burialplace, of Mohammed, the Arabian prophet. *Jiddah*, on the Red Sea, is the port of Mecca; *Yanbo* is the port of Medina. *Sana* (population, 40,000), the chief city of Yemen, is in the heart of the coffee district, and has about 40,000 inhabitants. *Mocha*, on the Red Sea, was formerly its chief port, but is now supplanted by *Hodeida*, which is farther northward. *Aden*, situated on the shore of the gulf of that name eastward of the Strait of Bab-el-Mandeb, belongs to Britain, and is a station on the line of communication between England and India by way of the Mediterranean and Red Seas.²

Muscat (population, 60,000), situated on the south-eastern coast of Arabia, is the chief city of Oman, formerly one of the most important of the

¹ *Medina*, Arabic *medinat*, the city.

² This is called the "Overland Route," from its involving the passage over the Isthmus of Suez.

Arabian sovereignties, and is a flourishing seat of commerce; Hadramaut (on the south coast) and El-Hassa or Lahsa (along the shore of the Persian Gulf) contain no towns of any importance. Riad (*population*, 30,000) is the capital of the Wahabee empire of Nejd.¹ Hail, the chief town of the sultanate of Jebel Shomer, and the residence of the Emir, is a walled town with 20,000 inhabitants, and is an important station on the Persian pilgrim route from Bagdad to Mecca.

QUESTIONS ON ARABIA.

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| <ol style="list-style-type: none"> 1. How is Arabia bounded? What is its general shape? 2. By what is the Red Sea distinguished? Into what gulfs does its northern extremity divide? 3. What straits connect the Red Sea and the Persian Gulf with the ocean? 4. What are the general features of Arabia as to mountains and plains? 5. What kind of aspect has the Arabian Desert? 6. Where is the region called the Tehama? 7. Which part of the country was distinguished by the ancients as (a) Arabia Petrea, (b) Arabia Felix? 8. What kind of climate has Arabia? 9. Into what two classes are the people of Arabia divided? 10. By what name are the Arabs of the Desert called, and what is their mode of life? 11. What kind of commerce does Arabia possess? | <ol style="list-style-type: none"> 12. Under what kind of government are the people of Arabia? 13. Which are the most important among the native rulers? 14. What provinces are subject to the Sultan of Turkey? 15. Name the present divisions of Arabia. 16. In which division of Arabia are the towns of Mecca and Medina? What town is the port of (a) Mecca, (b) Medina? 17. In which are Muscat, Sana, Mocha, Riad, and Hail? 18. By what great event is the Sinai region distinguished? 19. In what part of Arabia is the ruined city of Petra, near the foot of what mountain? 20. Which division of Arabia is distinguished as the Holy Land of the Mohammedans? And why? 21. Where is Aden? For what is it noteworthy? |
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PERSIA.

PERSIA is a country of western Asia. It embraces the westerly and larger portion of an extensive plateau which stretches from the Hindu-Kush to the Mountains of Armenia, and from the borders of the Caspian Sea to those of the Persian Gulf.

BOUNDARIES.—On the *north* Persia is bounded by Turkestan, the Caspian Sea, and Trans-Caucasia; on the *west* by Asiatic Turkey; on the *south* by the Persian Gulf; on the *east* by Afghanistan and Beluchistan.

EXTENT.—According to the latest estimates Persia contains an area of 648,000 square miles, or a little more than eleven times that of England and Wales.

The *greatest length*, from north-west to south-east, is 1400 miles.

The *greatest breadth*, from north to south, is 900 miles.

¹That is, the political Nejd. Physically, the term "Nejd" is applied to the whole of the central plateau. (See footnote, page 193.)

COASTS.—The Caspian Sea on the north, the Persian Gulf and Gulf of Oman on the south, wash the shores of Persia. Its northern coast-line is about 300 miles long, and its southern, 1200; total, 1500, equivalent to 1 mile of coast to every 432 square miles of area.

1. The **Caspian Sea** is the largest strictly inland body of water in the world, being upwards of 600 miles long and from 100 to 200 miles broad, and covering an area of about 150,000 square miles. Although called a "sea,"¹ it has no communication with the ocean, and its surface is considerably below the general sea-level. This sea "has no tides; its waters are slightly salt; it is shallow, stormy, and of difficult navigation, and has but few indifferent ports." It is, politically, controlled by Russia, and is regularly navigated by the war vessels of that power.

2. The **Persian Gulf** communicates with the Indian Ocean by the Strait of Ormuz and the Gulf of Oman. Its navigation is somewhat difficult, especially along its western shores, owing to numerous reefs and islands. Still it is constantly navigated by vessels to and from Bombay, and other Indian ports, and should the Euphrates-valley route to India be opened it will be much more frequented. The Strait of Ormuz derives its name from the small island of Ormuz, which lies near the coast of Persia.

ISLANDS.—The principal are Ormuz, Kishm, and Karak, in the Persian Gulf.

1. **Ormuz** is naturally a barren rock, but in the sixteenth and early part of the following century, when in the possession of the Portuguese, it was the chief emporium of the commerce of the East.²

2. **Kishm**, at the entrance of the Persian Gulf, an island of much larger size, lies to the west of Ormuz.

3. **Karak**, near the head of the Persian Gulf, is fertile, and will doubtless be an important station on the proposed Euphrates-valley route to India.

SURFACE.—The interior of Persia is a plateau, elevated from three to four thousand feet above the sea, and bordered on three sides—the north, west, and south—by mountain-chains. These mountains divide the elevated interior from the low country which lies along the Caspian Sea, the Persian Gulf, and the banks of the Tigris.

In the north of Persia the *Elburz* range skirts the southern shores of the Caspian Sea, and attaining in the volcanic *Mount Demavend* an elevation variously estimated at from 18,000 to 20,000 feet. The *Elburz* range is continued into the lofty mountain-groups in the north-western province, *Azerbijan*,³ of which the *Savalan Dagh* reaches a height of 14,000 feet. *Azerbijan* is the most rugged portion of Persia; it forms a succession of tablelands, mountain-peaks, and intervening valleys, and has a cooler temperature than other parts of the country. Near the western border lies the *Pushti-Kuh*, separating the basins of the Kerkha and the Tigris. There are also several ranges which extend parallel to, and at various distances from, the eastern shores of the Persian Gulf, of which the as yet unexplored *Kuh Dinar*, in Fars,⁴ is estimated to attain an elevation of 18,000 or probably 20,000 feet. Farther east lies the parallel chain of the *Kobrud Mountains*,

¹ It was called a "sea" by the ancients, who thought it communicated with the Northern Ocean, which was most probably the fact at a comparatively recent geological period, but no such connection has existed within historical times. The immense supply of water poured into the Caspian by the *Volga*, *Ural*, *Kour*, and other large rivers seems to be at present equal to the amount evaporated, but at a former period this could not have been the case, or its level would not be below that of the ocean.

² "High on a throne of royal state which far

Outshone the wealth of Ormuz or of Ind."—*Paradise Lost*, b. II.

³ *Azerbijan*, "country of fire," formerly occupied by the fire-worshippers. Some of their descendants still exist in this province.

⁴ The province of Fars was anciently called *Peris*, hence Persia. The Persians call their country, *Iran*; the Arabs, *Fars* or *Faristan*.

which culminate in the *Kuh Darbish*,¹ 11,700 feet, in the north, and *Kuh Haasi*, 14,450 feet, in the south. The south coast is also skirted by several parallel but unimportant ranges, which are prolonged eastward into Beluchistan.

DESERTS.—Part of the interior plateau is a region called the *Great Salt Desert*. This is an arid tract, the soil of which is largely impregnated with particles of salt. South-east of the Great Desert is a smaller arid and marshy tract called the *Desert of Kerman*.

The total area of absolute desert is probably upwards of 150,000 square miles, or more than two and a half times the size of England and Wales.

RIVERS.—Persia has only a few large rivers of its own. The *Aras* forms part of its north-western frontier; the *Shat-el-Arab*, immediately above its entrance into the Persian Gulf (during the last thirty miles of its course), constitutes the line of division between Persia and Asiatic Turkey.

The other rivers of Persia are the *Kerkha* (380 miles long), *Kerun* (260 miles), and *Safed-rud*² (800 miles). The two former join the *Shat-el-Arab*; the *Safed-rud* flows into the Caspian Sea. The smaller rivers of Persia, flowing towards the interior, are either absorbed in its arid plains or are received into saltwater lakes. The *Shat-el-Arab* is formed by the junction at Kurnah of the Euphrates and Tigris.

LAKES.—The largest lake is *Urumiyah* (1735 square miles in extent), in the north-western province. It lies at an elevation of 4000 feet above the sea, and its waters are intensely salt. *Lake Bakhtegan* or *Niris*, in the more southern interior, about 50 miles south-east of Shiraz, is also salt. West of the latter is the small lake of *Shiraz*. *Lake Seistan* is on the eastern border.³

CLIMATE.—The climate of Persia exhibits great extremes. The interior plateaus are alternately parched by the fiercest heat of summer and swept by the cold winds of the opposite season. The lower plains, along the Caspian Sea and the Persian Gulf, are intensely hot.

The shores of the Persian Gulf, indeed, are among the hottest regions in the world, and the power of the sun's rays, reflected from the arid surface of rock and sand, is, during some months of each year, scarcely endurable. The mountain-valleys, lying among the successive terraces by which the interior is reached from the coast, or from the plains of the Tigris, possess a delightful and equable climate, and are the most fertile portions of Persia.

PRODUCTIONS.—In these elevated valleys, watered by numerous running streams, such fruits as the *vine*, *fig*, *watermelon*, and *peach* abound; a rich vegetation clothes the sides of the hills, and a carpet of wildflowers (many of them such as constitute the choicest ornaments of our gardens, as the *narcissus*, *iris*, and *asphodel*) covers the ground. The interior plains are arid and comparatively unproductive, yielding only saline plants and grasses. Among the minerals are the *turquoise*, found near Nishapoor, and the fine *white marble* of Maraghah.

¹ About 35 miles north-west of Isfahan.

² Or *Kish Uzen*, "golden stream."

³ The lake of Hamun or Seistan, on the eastern borders of Persia, is in reality a vast freshwater swamp, 160 miles in length, into which the Helmund and other streams, which drain southern Afghanistan, discharge their waters.

INHABITANTS.—Persia has about four and a half millions of inhabitants,¹ only one-fourth of which are of pure Persian race, dwelling mostly in the towns. The rest are Turks, Jews, Kurds, and various other wandering tribes.

About a fourth of the population of Persia are a people called *Illyats*, whose habits are pastoral. They dwell principally in tents, finding summer pastures for their flocks upon the mountain-sides, and returning to the lower plains during the season of winter. Camels, horses, and sheep constitute their wealth.

Education.—In no other country in Asia, except China, is education so generally diffused. The public schools and colleges are supported by the state, and give advanced instruction in Oriental literature.

Religion.—The people are mostly *Mohammedans*² in religion, but are followers of the Shiite sect, on which account deep and mutual antipathy prevails between themselves and the Turks.

INDUSTRY.—Although the greater portion of the country is an absolute desert, yet most of the people are engaged in *agricultural* and *pastoral pursuits*. Rice, barley, wheat, and various fruits are largely grown, and the mulberry, vine, and cotton-plant are extensively cultivated. There are few *manufactures*. Those of carpets, shawls, embroidered silks, sabres, and firearms are the most important.

Commerce.—The commerce, carried on by caravans, is considerable, native produce and manufactures being exchanged for Indian and European goods. The trade by the Caspian is mainly in the hands of the Russians, that by the Persian Gulf, &c., with British India, in those of the English. The total value of the imports and exports does not exceed £4,000,000. The internal trade centres at *Tabreez*,³ where the productions of northern India and central Asia are exchanged for British and continental manufactures, brought by caravan from the port of Trebizond on the Black Sea.

PORTS.—Bushire and Gombroon, on the Persian Gulf; Astrabad and Balfrush, on the Caspian Sea.

Internal Communication.—There are no *railways*, and but few good *roads*. There is telegraphic communication between Bushire, on the Persian Gulf, and Ispahan, Teheran, and Tabreez. A postal service was also opened in January 1871.⁴

GOVERNMENT.—The government of Persia is a despotic monarchy, the sovereign being entitled the *Shah*,⁵ but his power is absolute only in so far as it is not contrary to the precepts of the Koran. The Shah is assisted by seven ministers, the most important of whom are the "Grand Vizier," who has charge of foreign affairs and is also commander-in-chief of the army, and the "Lord Treasurer," who attends to home and financial affairs.

Finance.—The average annual *Revenue*⁶ is about £1,900,000, and the *Expenditure* £1,756,000. There is no public debt.

¹ The British secretary of legation estimated the population of Persia, in 1868, at 4,400,000: viz., inhabitants of cities, 1,000,000; villages and country districts, 1,700,000; wandering tribes, 1,700,000.

² The non-Mohammedan inhabitants do not exceed 74,000, and include about 26,000 Armenians, 25,000 Nestorian Christians, 16,000 Jews, and about 7000 Guebres or Parsees, who are the descendants of the ancient fire-worshippers.

³ The principal articles of import into Tabreez are cotton goods from Great Britain. The chief article exported is raw silk.

⁴ Both the telegraph and postal services are conducted by Europeans.

⁵ The Shah is officially styled "Shah-in-Shah," or King of Kings.

⁶ About one-fourth of the annual revenue is collected in kind (wheat, barley, rice, silk, &c.). The annual surplus is paid into the Shah's private treasury.

Army.—The standing army consists, in times of peace, of about 30,000 men, but there are also about 105,000 men in the reserve. Non-Mohammedans are exempt from military service.

DIVISIONS and TOWNS.—Persia is divided for administrative purposes into twenty provinces, each of which is under the rule of a "Beglerbeg," or civil and military governor. The following are the most important :—

Provinces.	Towns.	Provinces.	Towns.
Irak-Ajemi, .	Teheran, Ispahan, Hamadan.	Fars, . . .	Shiraz, Bushire.
Azerbijan, .	Tabreez.	Laristan, . . .	Lar.
Gilan, . . .	Resht.	Kerman, . . .	Kerman, Gombrun.
Mazanderan, .	Sarce, Balfrush.	Luristan, . . .	Khorramabad.
Khorasan, .	Meshed.	Khuzistan, . .	Shuster, Dizful.
		Seistan, . . .	Sekuha.

Teheran¹ (*population* fluctuates between 10,000 and 100,000), in the northern part of Irak, is the modern capital of Persia, but **Ispahan**² (*population*, 60,000) is of larger size and of greater commercial importance. Ispahan, however, has declined from the splendour which it once possessed. **Hamadan** represents the Achmetha of the Bible (Ezra vi. 2).

Tabreez³ (*population*, 120,000), the chief city of Azerbijan, lies not far distant from the shores of the salt lake of Urumiyah. The province of Azerbijan was the original seat of the ancient fire-worshippers of Persia, and it still exhibits numerous remains of the early fire-temples. The towns of **Resht** and **Balfrush**, situated within the hot and low plains that border on the Caspian, command the chief commerce of that sea.

Shiraz⁴ is the chief city of Fars, the most fertile province of Persia, and the original seat of the Persian monarchy. Shiraz enjoys a delightful climate and is the centre of considerable trade. **Bushire** (*population*, 25,000), on the Persian Gulf, is the chief seat of the foreign commerce of Persia. **Gombrun**, or **Bender Abbasi**, lies near the entrance of the gulf, on its northern shore.

Not far distant from Shiraz are the remains of the ancient *Persepolis*, the capital of the Persian monarchy in the age of Alexander the Great. These remains now bear the name of **Istakr**.

Shuster and **Dizful**, the chief cities of Khuzistan, the south-western province of Persia, are of some commercial importance. Shuster stands on the river Kerun, Dizful on a tributary of that stream. **Mohammerah**, at the junction of the Kerun with the Euphrates, has been growing in commercial importance during recent years.

A few miles to the south-west of Dizful is the mound of Sus, which marks the site of the ancient city of *Susa*, the Shushan of Scripture (Dan. viii. 2). Huge mounds and other remains of the works of man in a former age, situated in the midst of tracts now desolate, are found in various parts of Khuzistan, and reveal the same picture of decay which characterises every part of western Asia.

¹ Teheran was made the capital in 1794.

² Ispahan was captured by the Afghans in 1722, but retaken by Nadir Shah in 1727.

³ Seventy-seven thousand persons per-

ished in the earthquake of 1727 at Tabreez alone.

⁴ Shiraz was nearly destroyed by an earthquake in April 1853.

QUESTIONS ON PERSIA.

1. How is Persia bounded?
2. Where is the island of Ormuz, and for what is it noteworthy?
3. What kind of formation does Persia exhibit as to its physical geography?
4. Name some of the mountains that are within Persia. Which of its provinces is the most mountainous?
5. Where is the Great Salt Desert?
6. What rivers belong to Persia?
7. What two large lakes does Persia include?
8. What kind of climate has Persia?
9. What fruits and flowers belong to the watered districts of Persia?
10. Among the inhabitants of Persia are a people called *Illyats*, what are their habits?
11. What are the chief industries?
12. Under what form of government is Persia? How is the sovereign styled?
13. Into how many provinces is Persia divided? What city is the capital?
14. In what provinces are the cities of Isfahan, Hamadan, Tabreez, Balfrash, and Meshed?
15. By what is the province of Azerbijan distinguished?
16. In what province are Shiraz and Bushire? For what is Bushire noteworthy?
17. Of what ancient city are the remains found not far distant from Shiraz? For what was this city distinguished?
18. What three places are within the province of Khuzistan? Which of them stands at the junction of the Kerun river with the Euphrates?
19. Of what ancient city are the remains found near Disful?

BELUCHISTAN.

BELUCHISTAN¹ is the general name given to the imperfectly-explored territory bordering on the Indian Ocean, and lying between Afghanistan on the *north*, Persia on the *west*, and British India on the *east*.

EXTENT.—The area of Beluchistan is estimated at 106,800 square miles,² of which 60,000 belong to Persia. A straight line, from the port of Gwatar on the south to Quetta on the north, measures about 450 miles.

COASTS.—The coast-line is about 700 miles in length, and contains a few inlets which form indifferent harbours. The overland telegraph to India runs along the coast from Maksa to Kurachee.³

NATURAL FEATURES.—The chief physical characteristics of Beluchistan are (1.) the low coast desert of Mekran, backed by mountain-ranges of moderate elevation, beyond which lies (2.) the interior plateau, buttressed on the east by the Hala mountains, but sloping on the north to the sandy and stony plain, which extends to the Helmund valley in the south of Afghanistan.

1. **Mountains.**—An irregular chain of mountains extends from east to west at a distance of between 50 and 100 miles from the coast, terminating in a triple chain which occupies Persian Beluchistan. To the east the central plateau is bounded by the *Hala* and *Kurkleki* ranges, which extend north from Cape Muwarik, near Kurachee, to the Bolan Pass.

2. **Rivers.**—The only permanent river is the *Bampur*, in western Beluchistan. Both it and the *Mashkid* lose themselves in the desert. The *Dasht* and the *Atimini* enter the sea. The north-eastern districts are watered by various streams which flow south into the Indus.

¹ Beluchistan, so called from the *Beluchi* tribe, who occupy the larger portion of the country, but the *Brahuis* are now the dominant race.

² Nearly twice the area of England and Wales.

³ Or *Karachi*.

CLIMATE.—The climate exhibits extremes of heat and cold ; the plains, and in summer, even the highlands, being intensely hot ; while in winter the cold is severe, snow lying on the ground for several months. In summer the coast district of Mekran is one of the hottest parts of the globe.

PRODUCTIONS.—Several of the most useful minerals and metals are known to exist, but are not much worked. The vegetation resembles that of Persia, and in the low plains is of a decidedly tropical character. Leopards, wolves, hyenas, antelopes, and other wild animals are numerous, but the tiger and Asiatic lion are found only along the eastern frontier.

INHABITANTS.—The people of Beluchistan number probably 2,000,000, and belong to two entirely different races—the *Beluchis* proper, who are of Aryan origin, in the western part of the country ; and the *Brahuis*, of Mongolian descent, in the eastern districts.

Language.—The *Beluchis* proper speak a dialect closely allied to Persian; the language of the *Brahuis* is said to be of Sanskrit origin.

Religion.—Both the *Beluchis* and *Brahuis* are followers of the Moham-medan religion ; the former belong to the orthodox Sunnite sect, the latter to the sect of Omar.

INDUSTRY.—Some *agriculture* is carried on in the immediate neighbourhood of the various towns, but the bulk of the people are nomads, depending entirely on their flocks and herds. Rice is extensively grown only in Gundava in the north-east. There are no manufactures of any importance. The commerce is in the hands of *Hindus*, and large numbers of horses, drugs, &c., are sent to India. The trade is carried on by caravans, there being no roads or navigable rivers.

GOVERNMENT.—The western tribes are entirely independent, but those in the eastern provinces are nominally subject to the Khan of Khelat, who is virtually maintained by the British Government.

DIVISIONS and TOWNS.—The country is loosely divided into seven provinces, viz., *Khelat*, *Sarawan*, *Kach-Gundava*, in the north-east ; *Kohistan*, in the north-west ; and *Jalawan*, *Luz*, and *Mekran*, in the south. There are no towns of any importance ; the chief towns of most of the provinces being mere villages, containing a few hundred inhabitants, and frequently attacked and occasionally sacked by the wild nomads.

Khelat, the nominal capital of Beluchistan, is the summer residence of the Khan, who removes to **Gundava**, in the Indus valley, in the winter. Khelat lies 8000 feet above the sea, and was stormed by the British in 1839 and 1841. **Bampur** is the capital, and **Chabar**, the port, of Persian Beluchistan. **Gwatar** and **Sunmiani** are small ports on the coast of Beluchistan proper. About 70 miles north of Khelat is the famous *Bolan Pass*, which is long (51 miles), narrow, and difficult, and although it passes "over a lofty range by a continuous succession of ravines and gorges," it forms one of the main channels of communication between India and Afghanistan. In 1877 the town of **Quetta**, a few miles north-west of it, was occupied by the British, and is still held as a guarantee for the maintenance of communication with the countries north and west of the Indus valley. **Dadur** and **Sibi** lie near the south-eastern entrance of the pass. Dadur is one of the hottest places in the world. Sibi is at present the terminus of a branch line of the Indus valley railway.

AFGHANISTAN

AFGHANISTAN is the name given to a mountainous country on the north-western frontier of India. Lying between the Russian dominions and India, this country is, politically, of great importance, hence the recent strenuous efforts of the British Government to make its power felt and respected by the turbulent and warlike inhabitants of this otherwise unimportant region.

BOUNDARIES.—Afghanistan is bounded on the *north* by Turkestan, on the *east* by British India, on the *south* by Beluchistan, and on the *west* by Persia.

EXTENT.—The boundaries of Afghanistan are somewhat indefinite and fluctuating, hence its *area* is variously estimated at from 220,000 to 278,000 square miles, or about four times that of England and Wales.

By the Anglo-Russian Treaty of 1872, the Oxus was fixed as the northern boundary of Afghanistan, while the province of Seistan, in the south-east, was given to Persia. The Treaty of Gandamak provided for the extension of the north-west frontiers of India, and the occupation of certain assigned districts, but the country has been recently entirely evacuated by the British troops: the government having decided not to annex or even temporarily occupy any portion of Afghan territory.

NATURAL FEATURES.—Lord Lawrence pithily describes Afghanistan as a “country of mountain-ranges, narrow defiles, and valleys limited in extent.” In fact, more than four-fifths of its surface consists of rugged mountains, with intervening valleys, which are on the whole well watered by numerous streams.

1. **Mountains.**—A vast range extends along the northern border and is known as the *Hindu-Kush*, or Hindu-Koh (20,000 feet), from the Pamir Plateau to the Haji-Kah Pass, whence it is prolonged west as the *Koh-i-Baba* (18,000 feet) and *Safed-Koh*¹ (west), finally joining the Elburz Mountains. The *Suliman Mountains*, on the east, divide Afghanistan from the low plains that border the Indus; their highest summit, called Takht-i-Suliman,² is 12,000 feet. Besides these there are other lofty ranges, such as the *Siah-Koh*, south of the Heri-rud river, and the *Safed-Koh* (east), 12,000 feet high, south of the Cabul river.

2. **Passes.**—The principal passes are:—

(1.) The *Khyber Pass* (30 miles), leading from Peshawur towards Jellalabad and thence by the *Khurd Cabul Pass* to Cabul.

(2.) The *Kurum Pass*, up the valley of the Kurum river and then by the *Piwar Pass* (7500 feet) and *Shutargardan Pass* (11,000 feet) to the road between Cabul and Ghuzni.

(3.) The *Gomul Pass*, between the Indus valley and Ghuzni.

(4.) The *Bolan Pass* (50 miles) leads to Quetta and thence by the *Kojah Pass* to Candahar.

3. **Rivers.**—The chief rivers are the Cabul, Helmund, Merghab, Heri-rud, Herud, Farrah, and Dehas.

(1.) The Cabul and its tributaries drain the north-east valleys. After a course of 300 miles it enters the Indus at Attock.

(2.) The Helmund and its tributaries, of which the principal is the Argandab, drains central Afghanistan, and after a course of 700 miles discharges its waters into the lake, or rather swamp, of Seistan.

(3.) The Herud and Farrah enter the north end of the lake of Seistan.

(4.) The Merghab and Heri-rud both flow north and finally disappear in the Turkoman desert. The Dehas is also lost in the sands near Balkh.

¹ *i.e.*, the white mountain.

² *i.e.*, the throne of Solomon.

4. Lakes.—The only considerable lakes are (1.) the *Lake of Seistan* or Hamun on the south-west frontier, which is in fact a mere swamp, being scarcely anywhere more than three feet deep, and (2.) the intensely salt *Lake Abistada*, about sixty miles south-west of Ghuzni, drained by the Kishain into the Helmund.

CLIMATE.—The climate is distinguished by intense extremes of heat and cold; the summer heat in some of the deeper valleys being almost intolerable, while the winters, especially in the highlands, are intensely severe.

At Furrab, in eastern Afghanistan, it is said that the mid-day heat renders eggs hard and makes balls of lead malleable. Yet the winter of Cabul is intensely severe, and the streams are frozen sufficiently hard to bear loaded camels. In spite of the disadvantages of an extreme climate, the country is on the whole healthy, and its inhabitants are perhaps the strongest and most active race in central Asia.

PRODUCTIONS.—The natural productions are like those of Persia, and the ground yields abundance of fruits and grain wherever water is sufficiently plentiful.

Various metals and minerals are also found, but not much worked. Among the domestic animals are the camel, the broad-tailed sheep, and an excellent breed of horses, great numbers of which are exported to India. Among the wild animals are the lion (rare), leopard (common), wolves, hyenas, bears, wild sheep, and antelopes.

INHABITANTS.—The population is estimated at about 5,000,000, consisting of over 400 different tribes, of whom the *Ghilzais* and *Duramis* are the most powerful. Of the other tribes the most important are the *Taujiks* in the west, and the *Kahkars* in the south-east. The *Cofars* or *Kafirs*, *Mohmuds*, *Afridis*, *Waziris*, and other tribes occupy the mountainous regions which enclose the Punjab on the north and west.

Race.—The Afghans proper evidently belong to the Aryan race, but the *Hazaras*, in the north-west, are of Mongolian origin. The Afghans generally are a bold and hardy race of mountaineers, extremely jealous of their liberty, many of the tribes owning no sovereignty but that of their own chiefs. They are warlike and hospitable, but treacherous and faithless.

Religion.—Mohammedanism, the Afghan proper belonging to the orthodox or *Sunnite* sect, but the *Hazaras* and other tribes to the *Shiite* sect.

INDUSTRY.—The Afghans are mostly devoted to pastoral pursuits. There is little of manufacturing industry, but a considerable amount of transit trade¹ passes through Afghanistan, owing to its intermediate position between India and the countries of western Asia.

GOVERNMENT.—Afghanistan has for a long time been in a most unsettled state. The Ameer of Cabul is nominally acknowledged as sovereign, and is recognised by the British Government as ruler of Afghanistan.

On the death of Dost Mohammed, in 1863, the British Government recognised Shere Ali as Ameer of Afghanistan. In 1878, however, he refused to receive an English embassy, upon which war was declared, and after severe fighting Cabul and other towns were taken. On the death of Shere Ali, his son and successor, Yakub Khan prolonged hostilities, but he was soon forced to sue for peace, and on the 25th of May 1879, the Treaty of

¹ The principal trade routes are:—(1) from Herat by Meshed to Persia; and (2) from Herat by Merv to Bokhara; (3) from the Punjab by Peshawur to Cabul; and (4) from Scinde by the Bolan Pass to Candahar.

Gandamak was signed. By this treaty British India secured an extension of territory to the north-west, and a "scientific frontier" from the head of the Khyber Pass, by the Shutargardan Pass at the Afghan end of the Kurum Valley, to the Kōja Amran Pass north of Quetta, thus giving to India the command of the "north-west gates," by which alone any hostile advance can be made. Yakub Khan also consented to receive an English resident, but a fanatical outbreak at Cabul, resulting in the murder of Sir Louis Cavagnari on September 3, led to the second Afghan campaign. On the 12th of the following month General Roberts entered Cabul. On the 25th of July, 1880, Abdurrahman was proclaimed Ameer of Afghanistan under the auspices of the British Government. But two days later, Ayub Khan, a brother of Yakub Khan, advanced from Herat and inflicted a severe defeat on a British force under General Burrows at Maiwand. This untoward reverse was mainly due to the panic which seized the Bombay troops, and who in their flight broke the formation of the European reserve in the rear. Four hundred out of 650 English troops were killed or wounded, and the rest retired to Candahar, which was shortly after invested by the Afghans. By General Roberts' famous march (345 miles in 21 days) Candahar was relieved on the 31st of August, and the following day a battle was fought in which Ayub Khan was signally defeated. In the meantime the British troops had evacuated Cabul, leaving Abdurrahman in possession. The unexpected reverse at Maiwand, together with a fear that the new Ameer would not be able to maintain order, rendered it highly probable that Candahar would be retained and garrisoned by British troops. But the Home Government decided not to annex or occupy any part of Afghanistan: Candahar was accordingly evacuated on the 21st of April 1881, and was shortly after occupied by the Ameer's troops. After his defeat before Candahar, Ayub Khan retired to Herat, and is at present (June 1881) preparing to take the field against the Ameer, whose forces are moving towards Herat from Candahar.

DIVISIONS.—The principal divisions of Afghanistan proper are *Cabul* in the east, *Candahar* in the south, *Herat* in the north-west, *Seistan*¹ in the south-west, and *Damawn* in the south-east. Other large territories to the north and north-east are also politically included within Afghanistan, viz., *Afghan Turkestan*, between the Hindu Kush and the Oxus, and *Dardistan*, between the Hindu Kush and the Indian frontiers.

TOWNS.—The chief towns are:—**Cabul**, in the north-east, at an elevation of 6400 feet, defended by the Bala Hissar. Here, in 1842, Sir W. MacNaghten and Sir Alexander Burnes, and, in September 1879, Sir L. Cavagnari, were treacherously murdered. **Candahar** is the largest town in south Afghanistan, and is a place of some commercial importance, being on the main route between India and Persia. About thirty miles distant from Candahar is the scene of General Burrows' defeat by Ayub Khan on July 27, 1880. Before the town a battle took place on the 1st of September 1880 between the British troops under General Roberts and the Afghans under Ayub Khan, resulting in the total defeat of the latter. **Herat**, in the north-west, is the centre of several commercial routes between India, Persia, and Turkestan. These three towns, Cabul, Candahar, and Herat, form a triangle, on the occupation of which depends the command of the country. **Ghuzni** was in the 10th century the capital of an extensive and powerful empire, but is now a mere fortress, built on a rock 300 feet high above the adjoining plain. It was stormed and taken by the British in 1839 and 1842, and was again occupied during the recent war. **Jellalabad** lies on the right bank of the Cabul river, about midway

¹ The greater portion of the province of Seistan now belongs to Persia.

between Peshawur and Cabul. Between Jellalabad and Cabul are the passes in which the British forces were annihilated during the winter of 1841-42.¹

AFGHAN TURKESTAN includes a number of small states, lying between the Hindu-Kush and the Oxus. These are (from east to west) Wakhan, Badakshan, Kunduz, Khulm, Balkh, and four other small states.

1. **Wakhan** is the most easterly of these states, and includes the valley of the Panja or Upper Oxus. The chief town is *Kila Panja*. This state is tributary to

2. **Badakshan**, which includes the fertile valley of the Kokcha, also an affluent of the Oxus. This state is mountainous, but the valleys and lower grounds are cultivated to a considerable extent. The principal towns are *Faizabad* and *Zebak*. West of Badakshan lies the state of

3. **Kunduz**, which is bounded on the north by the Oxus and on the south by the Hindu-Kush. The valley of the river Kunduz (an affluent of the Oxus), is on the whole fertile, but unhealthy. The capital is the mud-village of *Kunduz*. On the route between Kunduz and Faizabad is the former capital of *Talikan*.

4. **Khulm** lies between Kunduz and Balkh. Its chief river and capital are also called *Khulm*. The higher grounds are rocky and arid, but the river valley is exceedingly fertile.

5. **Balkh**, the ancient Bactria, embraces the fertile and populous basin of the Dehas river, the waters of which are drawn off in eighteen canals, and entirely exhausted in irrigation. The capital, *Balkh*, now a mere village, is noted as being the birthplace of Zoroaster, and was anciently a magnificent city.

6. Besides the above four other small khanates, formerly independent, are included within the limits of Afghan Turkestan. These are *Shibergan*, *Andkhui*, *Maimene*, and *Siripul*. These states lie between the province of Herat and Independent Turkestan. The total population is probably under 250,000, mainly consisting of Usbega.

QUESTIONS ON BELUCHISTAN AND AFGHANISTAN.

1. How is Beluchistan bounded, and what is its area?

2. Name the chief natural features of Beluchistan.

3. What mountain-ranges lie between Beluchistan and British India?

4. Describe briefly the climate and productions of Beluchistan.

5. To what races do the people of Beluchistan belong?

6. What form of religion do they profess?

7. Name the chief divisions of Beluchistan?

8. What town is the nominal capital? Where are the following towns:—Gundava, Bampur, Chabar, Dadur, Sibi?

9. Where is the Bolan Pass? What town is held by the British near its northern entrance?

10. Where is Afghanistan, and what are its boundaries?

11. Name the principal mountain ranges and passes.

12. What rivers belong to Afghanistan? Point them out on the map and trace their courses.

13. Name the two chief lakes.

14. What kind of climate has Afghanistan?

15. Enumerate the principal natural productions.

16. The inhabitants of Afghanistan belong to many different tribes—which are the most important?

17. What form of religion do the Afghans profess?

18. How are they generally employed?

19. What chief is nominally acknowledged as ruler of Afghanistan?

20. Mention some of the events in the war of 1878-80.

21. What are the principal divisions?

22. State what you know of Cabul, Candahar, Herat, Ghuzin, and Jellalabad.

23. Describe briefly the states comprised within Afghan Turkestan.

¹ In this disastrous retreat only one man reached Jellalabad, which was held by Sir Robert Sale with a small force, until relieved by General Pollock, who ordered the fortifications to be destroyed.

On December 14, 1879, the British forces

were withdrawn from Cabul to the fortified camp of Sherpur, near the city, where they were unsuccessfully attacked by 25,000 Afghans, after which the town was re-occupied and held until August 11, 1880, when it was finally evacuated by the British.

INDIA.

INDIA PROPER or HINDUSTAN, extending from the Himalaya Mountains to Cape Comorin, and from the river Indus to the head of the Bay of Bengal, is the central and by far the most important of the three great peninsulas of southern Asia.

BOUNDARIES.—The Himalaya Mountains bound India on the *north*; Burmah and the Bay of Bengal on the *east*; Afghanistan, Beluchistan, and the Indian Ocean on the *west*. To the *south* it terminates in Cape Comorin, a conspicuous headland which fronts the waters of the Indian Ocean.

In shape India proper is triangular, the vast range of the Himalayas forming the base, the Malabar and Coromandel coasts the sides, and Cape Comorin the apex. It is worthy of notice that the boundaries of India are for the most part formed by strongly-marked natural features. Thus the Hala and Suliman Mountains on the north-west, the Himalayas on the north, and the Naga, Cossya, and Tipperah Hills on the east, form an almost continuous "wall," enclosing the continental portion of India. The strictly peninsular portion south of the Tropic of Cancer is bounded on both sides by the sea. The *political* importance of a naturally strong frontier, instead of merely artificial boundaries, is evidently very great, and especially when an immense territory like India is held by a distant foreign power.

EXTENT.—India embraces an area of nearly 1,500,000 square miles, a magnitude twelve times greater than that of the British Islands, and which exceeds by upwards of twenty-five times the area of England and Wales.

The total area of the provinces directly under British administration is officially estimated at 899,341 square miles, and the native states at 573,516 square miles, a total of 1,472,857 square miles.

COASTS.—The coasts of India are, on the whole, regular and unbroken, deficient in good harbours, and so exposed and surf-beaten as to be in many parts extremely dangerous to approach. The length of the coast-line is about 3600 miles, equivalent to one mile of coast to every 416 square miles of area. Various portions of the Indian coasts are distinguished by special names, such as—

1. The **Orissa Coast**, between the mouths of the Hooghly and the Godavery.
2. The **Golconda Coast**, between the Godavery and the Krishna.
3. The **Coromandel Coast**, between the Krishna and Cape Comorin.
4. The **Malabar Coast**, between Cape Comorin and Goa.

The principal features along the coasts of India are :—

1. **CAPES.**—Cape Monze (near Kurachee) and Diu Head (south of Guzerat) on the west, Cape Comorin on the south, and Calimere Point on the west.
2. **INLETS.**—The Gulf of Cutch or Kach, leading into the *Rann of Cutch* (a vast salt marsh, flooded only during the rainy season), and the Gulf of Cambay, on the *west*; and, on the *south*, the Gulf of Manaar (divided from Palks Strait by the remarkable chain of sandbanks known as Adam's Bridge) between Ceylon and the mainland.

ISLANDS.—The principal islands are Ceylon, the Laccadives, Maldives, and the Andaman, Nicobar, and Bombay groups.

1. The large island of *Ceylon*, lying to the south of India, belongs to Britain. It is not attached to either of the Presidencies on the Indian mainland, but forms a distinct colony, under the authority of the British Crown. Ceylon is 24,700 square miles in area, or about three-fourths the size of Ireland. The interior of the island is a high mountain-region, the loftiest summits of which exceed 8000 feet; a broad belt of lowland extends around the coast. Numerous rivers water its plains and valleys, and it possesses a fine climate, with an abundance of rich natural produce. Its extensive forests (through which numerous herds of elephants yet roam) are composed of trees which yield timber of the highest value, as the teak, ebony, rosewood, satin-wood and others. But the most characteristic products of the island are coffee, cinnamon, and cocoa-nut oil.¹ Ceylon has nearly two and a half millions of inhabitants. These are called the Singalese; they differ in some respects from the people of the Indian mainland, and profess Buddhism. The chief town of the island is *Colombo*, on the western coast. *Trincomalee*, a flourishing seaport with an excellent harbour, is on the north-east side of the island. *Kandy*, formerly the native capital, is in the interior.

2. The groups of the *Laccadive* and *Maldivé Islands* lie in the Indian Ocean, to the south-west of India. The former are surrounded by coral reefs, and the Maldivé Islands are wholly composed of coral—scarcely rising above the level of the surrounding waters. The cocoa-nut is the chief article of produce in either group.

3. The *Andaman Islands* are in the eastern part of the Bay of Bengal. A convict settlement for the Indian rebels captured during the mutiny was established in 1858 at Port Blair.²

4. The *Nicobar Islands* lie to the south-east of the Andaman Islands and consist of two large islands, Great and Little Nicobar, and several smaller ones.

5. Of the *Bombay Group* the principal islands are Bombay, Salsette, Colaba, and Elephanta, the latter especially being famous for the temples and idols excavated in the solid rock. The island of Bombay, near the southern extremity of which lies the town of Bombay, is connected with Salsette by an artificial causeway.

NATURAL FEATURES.—The more noticeable of the great natural features of India are on the north, the vast range of the Himalayas, the loftiest mountains in the world, the exterior ranges of which rise abruptly from the great plain of Hindustan, watered by the Indus and Ganges. The peninsular portion of India to the south of this plain forms a series of tablelands, crossed transversely by several considerable chains, and buttressed on the east and west by the Ghats, between which and the sea is a narrow plain. The highlands of central and southern India are everywhere seamed by irregular valleys drained by numerous rivers.

India thus embraces two great divisions: the north, which is an extensive lowland plain; and the centre and south, which form a plateau, bordered by mountains of moderate altitude. The plain of northern India is distinguished as *Hindustan*; the centre and south constitute a region known as the *Deccan*.

¹ The value of the exports from Ceylon to the United Kingdom amounted in 1879 to £3,568,995; (coffee, £3,001,075; cocoa-nut oil, £116,356; and cinnamon, £103,860.) The chief articles imported from Great Britain

in 1879 were cotton goods of the value of £329,351.

² Here Lord Mayo, the viceroy of India, was stabbed by a convict in 1872.

1. **MOUNTAINS.**—The chief mountain-chains of India are the Himalaya, the Western and Eastern Ghats, and the Aravulli, Vindhya, Satpooa, and Nilgherries. The Himalayas are by far the most important, and they include the highest elevations on the surface of the globe.

(1.) The *Himalaya Mountains* extend for 1500 miles in a well-defined line along the northern border of India, dividing that country from the tableland of Tibet. Like many of the other great mountain-systems of the world, the Himalayas consist of several parallel ranges. The outer range, bordering on the great plain of India, rises abruptly to a height of 3000 or 4000 feet. The inner chains gradually increase in elevation and culminate in the main ridge containing the lofty summits of *Mount Everest*, 29,002 feet above the sea (by far the highest mountain in the world); *Dhaulagiri*, 28,078 feet; and *Annapurna*, 28,177 feet. All the higher parts of the Himalayas are covered with perpetual snow. The passes over the Himalayas are lofty and extremely difficult. The best known passes are the *Karakorum Pass* (18,550 feet), and *Masabi*, leading into Eastern Turkestan, and the *Seylub Pass* into Tibet. All the loftier valleys are filled with vast glaciers, from which the great rivers of India derive a never-failing supply.

(2.) The *Western Ghats* extend along the Malabar coast of India, lying close to the shores of the Indian Ocean. Their highest summits do not exceed 5000 feet. A succession of detached portions of high ground which extend along the eastern side of the peninsula are called the *Eastern Ghats*. These have an average height of 1500 feet.

(3.) The *Aravulli Mountains* lie along the western border of the tableland of Malwa, and separate the basins of the Ganges and the lower Indus. The average elevation is inconsiderable, but *Mount Abu* rises to a height of 5000 feet above the sea. Farther south is *Girna*, 3000 feet high.

(4.) The *Vindhya Mountains* lie in the direction of east and west, along the north side of the peninsular portion of India. Their height is moderate, seldom exceeding 3000 feet.

(5.) The *Satpooa Mountains* run almost parallel to the Vindhya range for 200 miles, between the Nerbudda and the Tapti. These mountains are prolonged eastward, almost to the banks of the Ganges, as the *Raymahal Hills*, one peak of which, *Mount Parasnath*, reaches a height of 4530 feet. Still farther east, beyond the Brahmaputra, are the minor *Garro* and *Khasia Hills*. Between these and the coast are the *Tipperah Hills*.

(6.) The *Nilgherries* form a connecting link between the Eastern and Western Ghats, and rise abruptly from the remarkable valley or "gap" of Coimbatore, which extends right across the peninsula. The highest point is *Mount Dodabetta*, 8760 feet. To the south of the "gap" are

(7.) The *Aligherries* or *Cardamum Mountains*, remarkable as containing the highest mountain in India south of the Himalayas, *Anamalli*, 8837 feet.

2. **TABLELANDS.**—The principal tablelands are:—

(1.) The *Northern Tableland*, or plateaux of Malwa and Bundelkhand, in central India, and bounded on the north-west by the Aravulli range, and on the south by the Vindhya Mountains.

(2.) The *Southern Tableland*, or the *Deccan*, occupying nearly the whole of peninsular India, and bounded on the east and west by the East and West Ghats, and on the north by the Vindhya and Satpooa Mountains and the valleys of the Nerbudda and Tapti.

3. **PLAINS.**—The *Great Plain of Northern India* extends across the country between the northern tableland and the Himalayas. Its south-eastern slope towards the Bay of Bengal is drained by the Ganges, its south-western slope by the Indus; hence its division into the "Plain of the Ganges" and the "Plain of the Indus." Within the latter is comprehended the fertile Punjab, the Great Indian Desert (or *Thar*), and the Runn of Cutch. In the north of the plain of the Ganges is the malarious swamp called the "Terai;" with this exception, the plain is

fertile and productive, supporting an exceptionally dense population. The *Eastern and Western Coast Plains* lie between the Ghauts and the sea; the eastern plain is much wider and more fertile than the western, the extreme breadth of which nowhere exceeds 50 miles.

4. **RIVERS.**—The rivers of India are naturally divisible into two great sections, viz., those draining the south-eastern slope into the Bay of Bengal, and those draining the south-western counter-slope into the Arabian Sea. The principal rivers are:—

(a.) The Brahmaputra, Ganges, Mahanuddy, Godavery, Krishna, and Cauvery, *draining the south-east slope into the Bay of Bengal.*

(b.) The Indus, Nerbudda, and Tapti, *draining the south-west counter-slope into the Arabian Sea.*

(1.) The **Brahmaputra** rises in the vast glaciers on the northern slopes of the Himalayas, and flows east for several hundred miles, but turns south through Assam, and in its lower course divides into several channels, some of which unite with the lower channels of the Ganges. *Total length, 1680 miles.*

(2.) The **Ganges**¹ rises on the south slope of the Himalayas, and, after a south-east course of 1500 miles through the great plain, finally enters the Bay of Bengal by numerous channels, of which the Hooghly is the most important. The Ganges is navigable for the largest vessels to Chandernagore, while light steamers can go up to Cawnpore, and thence by canal to Hurdwar, more than 1300 miles above its mouth. The chief tributaries are the *Jumna* and *Sone* on the right, and the *Goomtee*, *Gogra*, *Gunduck*, and *Coosy* on the left, bank.

(3.) The **Mahanuddy**, though notorious for its destructive floods, is yet navigable by boats for 400 miles. Its length is 520 miles, and its area of basin 70,000 square miles. Its extensive delta forms the province of Outtaok.

(4.) The **Godavery** rises in the Western Ghauts, not far from the Gulf of Cambay, and flows south-east for 900 miles, entering the Bay of Bengal by two large channels. The navigation of this river is impeded by several rapids.

(5.) The **Krishna** or **Kistna** also rises on the eastern slopes of the Western Ghauts, and has a rapid and unnavigable course of 800 miles. Its chief affluents are the *Toombudra*, on the right bank, and the *Bheema*, on the left.

(6.) The **Cauvery** rises in the Western Ghauts and enters the coast-plain by two magnificent falls, of which the upper is 370, and the lower 460, feet high. It enters the sea by two branches, which enclose a delta 80 miles long. The south-eastern branch (the *Coleroon*) is extensively used for irrigation.

(7.) Of the minor streams that flow into the Bay of Bengal the principal are the **Braminy** between the Mahanuddy and the Ganges; the **North Pennair** and **South Pennair**, both of which rise in the hills of Mysore.

(8.) The **Indus** rises in the tableland of Tibet,² and flows first north-west through Cashmere, and then south through the Punjab and Seinde, entering the Arabian Sea by numerous mouths. About 470 miles above the sea it is joined by a stream called the *Punj-nud*, which brings the collected waters of five tributary rivers. The district through which these rivers flow is called the Punjab—that is, the country of the five rivers. The names of these are *Jelum*, *Chenab*, *Ravee*, *Beyas*, and *Sutlej*. The Indus is navigable to its confluence with the *Cabul* river at Attock, 900 miles from the sea.

¹ "The work done by the Ganges, as the water-carrier and fertiliser of the densely-populated provinces of Northern India from its source in the Himalayas to its mouth in the Bay of Bengal, entitles it to rank as the foremost river on the surface of the globe, and fully excuses the affectionate reverence and the divine honours paid to it by the Hindus. A great river like the Ganges has three distinct stages in its life from its source to the sea. In the first stage it dashes down the mountain-sides, cutting out for itself deep gullies in the solid rock and ploughing up glens and ravines upon its way. The second stage is where it emerges from the mountains on to the plain, running then more

peaceably along the valleys and seeking out for itself the lowest levels. Here it receives the mud and drainage of the country round, absorbs tributaries, and rolls forward with an ever-increasing volume of water and silt. Finding its speed checked by the equal level of the plains and its bed raised by its own silt, it splits out into channels 'like a jet of water suddenly obstructed by the finger or a jar of liquid suddenly dashed upon the floor. Each of the channels thus formed throws out in turn its own channels to right and left.' In the case of the Ganges, the country which these many offshoots enclose forms the Delta of Bengal."—*The Times*, May 26, 1881.

² At an elevation of 14,500 feet.

(9.) The *Nerbudda* rises in the highlands of Central India and flows west between the Vindhya and Satpoora Mountains into the Gulf of Cambay. It is 800 miles long, and is throughout rapid and unnavigable.

(10.) The *Tapti* rises in the Satpoora Mountains and flows west through the valley formed by them and the northern edge of the Deccan. Both the *Nerbudda* and *Tapti* are subject to sudden and destructive floods.

(11.) Of the smaller streams draining the south-west slope the chief are the *Loony*, which rises in the Aravulli range and flows into the *Runn*; and the *Mahl*, rising in the tableland of Malwa and entering the Gulf of Cambay.

5. **LAKES.**—Unimportant. *Chilka* and *Pulicut Lagoons* on the east coast; the Lagoons of the Malabar coast; *Lake Colair*, formed by the expansion of the Krishna and Godavery; and *Lake Woolar*, similarly formed by the *Jelum*.

CLIMATE.—The climate of India is hot, excepting only in the higher mountain-regions, where a cool temperature results from elevation above the sea. These elevated tracts are accordingly resorted to for sanitary purposes.

The lower slopes of the Himalayas, in the north of India, the Ghauts, off the western coasts of the peninsula, and the region of the Nilgherri Hills, in the south, are well known for their cool atmosphere and their refreshing breezes. In like manner, the mountain-district in the interior of Ceylon, though only a few degrees distant from the equator, enjoys a cool and invigorating temperature. The seasonal changes in India are those from rain to drought, and the reverse, and are intimately connected with the *monsoons* or periodical winds which prevail throughout southern Asia. The monsoons bring rain or drought alternately to the plains of India, according as they have passed over the ocean or over inland regions. On the Malabar coast the south-west monsoon (which blows from April to September) is accompanied by rain, which falls in torrents along the whole seaward face of the Ghauts. On the Coromandel coast, on the other hand, the north-east monsoon (October to March) is accompanied by rain. But the eastern side of India is generally hotter and more arid than the western coasts of the peninsula. These changes of the monsoons regulate in great measure the habits of life of the Indian population.

PRODUCTIONS.—The natural productions are rich and varied.

(1.) The *gold* and *jems* for which India is traditionally celebrated are of less real value than the *coal* and *iron* which are found extensively diffused through large portions of the country. Good coal is worked to the north-westward of Calcutta, and iron is worked in many localities. *Tin*, *copper*, and other metals also occur.

(2.) The *vegetable produce* is of high value. India supplies all, or nearly all, the fruits and other plants mentioned as belonging to southern Asia in general. Vast forests of teak and other trees clothe the seaward face of the Ghauts, and forests extend from the plains of northern India far up the declivities of the Himalayas. The least productive part of India is the region known as the Great Indian Desert, and the neighbouring tract entitled the *Runn* of Cutch. The latter is alternately an arid and sandy waste, or a vast swamp, with the seasons of drought and moisture.

(3.) Of the animals, the principal are the domestic and wild *elephant*, the maneless *lion* (in Guzerat and Rajpootana), *tiger*, *leopard*, *wolf*, *hyena*, *rhinoceros*, *buffalo*, *wild ass*, *deer* and other game, and *monkeys*. Of the domestic animals, besides the elephant, we have the *camel*, the *humped ox*, the *yak*, and the *Cashmere goat*.

INHABITANTS.—The *population* of British India is estimated at 240,000,000, of which nearly 200,000,000 (an average of more than 200 to the square mile) are subjects of Britain; and the great bulk of the remainder, though with various native sovereignties, are virtually under the controlling power of Britain. But vast as is its population in numerical amount, India is yet less populous (relatively to size) than several countries of Europe. Some parts of the country are much more populous than others. The provinces on the lower Ganges are the most densely populated; those in the north-west of India the least so.

Race.—The great mass of the people of India (six-sevenths of the whole) belong to the *Hindu race*, the various families of which, however, exhibit many points of difference. The inhabitants of the provinces that border on the lower Ganges are of small stature and slender frame; those of the more inland provinces are a people of larger proportions and greater strength. There are, besides, settled in various parts of India, and intermingled with the Hindu population, descendants of *Arabs*, *Armenians*, *Afghans*, *Turks*, and *Abyssinians*; together with *Parsees*,¹ *Jews*, and people of various European nations (principally British).

Religion.—The Hindus are uniformly followers of the *Brahmanical* religion, worshipping the Hindu trinity, of which Brahma, Vishnu, and Siva are the members. The division into castes is one of their most characteristic social usages. Of that portion of the population of India which is not included among the worshippers of Brahma, by far the greater number are *Mohammedans*. The total number of Mohammedans is upwards of forty millions. There are also three million *Buddhists* and one million *Sikhs*. *Christianity* is making some progress, and there are devoted missionaries in nearly all the large towns. The native Christians number about nine hundred thousand, and are most numerous in the Madras presidency.

INDUSTRY.—The industry of India is chiefly agricultural. Rice is the principal article of food consumed by the great mass of the population, who live mostly upon vegetable diet—not less from its superior economy and from the natural influences of the climate than from religious prejudices in its behalf.² The culture of the poppy—for the purpose of extracting *opium*—is very extensively pursued in some of the provinces within the valley of the Ganges, and also on the plateau of Malwa, to the northward of the Vindhya Mountains. *Indigo*, *cotton*, the *sugar-cane*, the *coffee-plant*, and the *mulberry* are the objects of culture in various parts of India. Fine *silk* and *cotton* fabrics, with *shawls* and other articles of ornamental attire, constitute the chief produce of Indian manufacturing skill. The *tea-plant*³ is now successfully cultivated in Assam and Bengal.

¹ The Parsees, who are confined to the city of Bombay and a few places in the immediate vicinity, are descended from the ancient fire-worshippers of Persia.

² It is a mistake to suppose, as is commonly the case, that the Hindus abstain altogether from animal food. The ox is sacred, and its flesh is never touched, and the flesh of swine is regarded with horror both by the Brahmin and the Mohammedan. But mutton is eaten without hesitation, and fish is largely consumed, whenever it is cheaply obtainable. In all hot countries, however, vegetable diet is

preferred by the mass of the people. The Greenlanders, who consume twelve pounds' weight of meat in a day, and the Hindu, whose chief nutriment is derived from rice, act in each case upon the instinctive impulses that are always associated with climate and other conditions of physical geography.

³ Over 1,000,000 acres of land are now under tea-cultivation. In 1870, 38,241,030 lbs. of tea, valued at £2,911,422, were exported to the United Kingdom from British India.

Commerce.—The import of *manufactured goods* (principally from Britain), and the export of *raw produce*—chiefly opium, indigo, cotton, and rice—are the distinguishing features of Indian commerce. The opium is supplied to China, by the population of which country it is extensively consumed. A large trade is also carried on by caravans with the countries east of the Himalaya and Suliman Mountains.

The total value of the *imports* in 1879 was £44,857,000, and the *exports* £64,919,000. In the same year the exports from India to Great Britain¹ and Ireland amounted to £24,698,000, and the imports of British home produce² to £21,374,000.

Ports.—Calcutta, Madras, Pondicherry, Cochin, Calicut, Mangalore, Bombay, Surat, Cambay, and Kurachee.

INTERNAL COMMUNICATION.—Until recently very defective; the *roads*, except in the vicinity of the larger towns, being generally wretched, but some magnificent roads have been constructed by the government. These, with the *navigable rivers* and *canals*, and an extensive system of *railways*, have vastly extended the internal trade of India.

On the 1st of January 1880 there were 8228 miles of railway open or in course of construction. All the larger towns are connected by the *electric telegraph*, and a complete and extensive postal system is in full operation.

GOVERNMENT.—This immense country is chiefly under British government. Three-fifths of the whole vast region lying between the Himalaya Mountains and Cape Comorin come under the appellation of British India, and are subject to the direct rule of authorities appointed by the British Crown. The remainder is divided between various native states, of which there are a vast number (many hundreds in all), attached to Britain by various ties, but all more or less dependent upon British power. These are sometimes designated the "Tributary" or "Protected" States. The titles of their rulers are various. The sovereign of Hyderabad, the largest amongst them, is called the Nizam; the ruler of the larger portion of Guzerat is known as the Guicowar. More frequently, however, the title of Rajah is employed.

Prior to the year 1858 all the provinces of British India that are situate on the mainland were under the rule of the *East India Company*—a body of merchants originally incorporated in the reign of Queen Elizabeth—subject only to a limited control on the part of the Crown. But in that year the political functions of the company were terminated by parliament, and the whole of their vast dominions brought under the direct authority of the British Crown. The Queen of England assumed the title of *Empress of India* by an Act proclaimed at Delhi before the princes of India on January 1, 1877.

Finance.—The estimated *Revenue* (1879–80) was £61,620,000, and the *Expenditure* £65,950,000. The *Public Debt* amounts to upwards of £146,000,000.

Army.—The British regular army consists of 62,000 men, and the native army of 125,000. The armies of the native states of India number collectively upwards of 300,000 men.

DIVISIONS.—India is politically divided into (1) British Possessions, (2) Native States, (3) Foreign Possessions.

¹ The staple article of export from India to the United Kingdom is *raw cotton*, but during the last few years the quantity shipped has been gradually decreasing.

² Chiefly cotton goods and iron. About 50 per cent. of the total trade of India is with Great Britain, 15 per cent. with China, and the rest with France, United States, &c.

I. BRITISH POSSESSIONS.

The territories under direct British administration were formerly divided into the three presidencies of Bengal, Madras, and Bombay. At present British India is *officially* divided into eight "presidencies and provinces," the whole under the rule of the Governor-General (or Viceroy) and Council, seated at Calcutta. The government authorities in India, however, are subordinate and responsible to the Secretary of State for India and the Indian Council at home. The present divisions under direct British rule are :—

Province.	Capital.	Other Towns.
1. Bengal, ...	Calcutta,	Moorshedabad, Patna, Cuttack.
2. { North-West Provinces,	Allahabad,	Benares, Cawnpore, Agra, Bareilly,
{ Oude, ...	Lucknow,	Meerut, Hurdwar.
3. Punjab, ...	Lahore,	Fyzabad, Oude.
4. Central Provinces, .	Nagpore,	Delhi, Mooltan, Peshawur, Simla.
5. British Burmah, . .	Rangoon,	Jubbulpore.
6. Assam, ...	Gowhatty,	Prome, Martaban, Moulmein.
7. Bombay, ...	Bombay,	Goalpara, Sylhet.
8. Madras, ...	Madras,	Surat, Baroche, Poonah, Sattara, Kurnachee, Hyderabad.
		Masulipatam, Tranquebar, Arcot.

Each of the above provinces are divided into *Commissionerships* and *Districts*, termed "Regulation Districts," in contradistinction to the "Non-Regulation Districts," i.e., those districts (protected and semi-independent native states) which are not under *regular* British rule.

1. **BENGAL**¹ includes, besides the lower portion of the Ganges and Brahmaputra valleys, the former province of Cuttack, at the mouth of the Mahanuddy. The greater part of this province forms a vast alluvial plain, which is by far the most productive and populous part of India. The principal industry is agriculture, and immense quantities of rice are grown. Besides rice, wheat, maize, and barley are also grown. Among its other products the most important are opium and indigo. Before 1853 Bengal was under the administration of the Governor-General. In that year, however, it was placed under a lieutenant-governor, who is assisted by a legislative council. All the great cities of this part of India are situated either on the Ganges or its various tributary streams, and the great line of communication with the interior follows the course of the river. The principal towns in Bengal are Calcutta, Moorshedabad, Patna, and Cuttack.

Calcutta, the capital of British India, stands on the east bank of the river Hooghly (the principal arm of the Ganges), at a distance of a hundred miles from the sea. It has 895,000 inhabitants. The navigation of the Hooghly is dangerous, but its channel is frequented by vessels of all sizes and of various nations. *Plassey*, the scene of Clive's great victory in 1757, lies to the northward of Calcutta. **Moorshedabad** (*population*, 147,000) has important native manufactures. **Patna** (*population*, 159,000), on the right bank of the Ganges, is the principal town in Bahar. The largest town in the maritime province of Cuttack is **Cuttack** (*population*, 40,000), which is situated on an arm of the Mahanuddy.

¹ Area, 156,200 square miles : population (1881), 68,750,000 : 440 to the square mile.

2. **NORTH-WEST PROVINCES**¹ and **OUDE**² now (1881) form one province. The North-West Provinces were separated from Bengal in 1833. Oude was annexed in 1856, and until 1876 formed a distinct government, under a chief commissioner. The North-West Provinces embrace the upper portion of the Ganges valley (including the *Dooab*, as the tract between the Ganges and the Jumna is called), and enclose Oude on all sides but the north, which is bounded by the independent state of Nepaul. The chief industry in this division is agriculture, and much wheat, rice, and other grains are grown. Indigo and opium, cotton and sugar are also successfully cultivated. The principal towns are Allahabad, Benares, Cawnpore, Agra, Meerut, and Hurdwar, in the North-West Provinces, and Lucknow and Fyzabad in Oude.

Allahabad (population, 143,000), at the junction of the Jumna and Ganges, and **Benares** (population, 175,000), on the north bank of the Ganges, are two of the largest among the inland cities of India, and are among the sacred cities of the Hindus, their numerous temples being the crowded resort of the devotees of Hindu worship. **Cawnpore**, on the right bank of the Ganges, is memorable for the massacre of English residents during the mutiny of 1857. **Agra** (population, 150,000) is on the right bank of the Jumna. **Meerut**³ is an important military station, 95 miles north-east of Delhi. **Hurdwar** lies on the banks of the Ganges, where it issues from the Himalayas. The capital of Oude is **Lucknow** (population, 285,000), memorable for the defence of the British Residency during the Sepoy insurrection of 1857-58. Lucknow is on the river Goomtee, one of the many affluents of the Ganges. **Fyzabad**, on the Gogra, was the former capital of Oude.

3. The **PUNJAB**⁴ embraces the north-western part of the great plain of India, and is so called from the "five rivers" which water it. Only about half of this immense territory is under direct British rule, the rest belongs to thirty-four dependent and feudatory native states. The Punjab was proclaimed British territory in 1848, and was placed under a Board of Commissioners until 1859, when a lieutenant-governor was appointed. About a third of the land is cultivated, and large quantities of wheat, rice, and other grains are produced. The principal mineral product is salt, which is found in abundance in the hills (Salt Range) in the north-west. The principal towns are Lahore, Delhi, Mooltan, and Peshawur.

Lahore⁵ (population, 100,000), the chief city of the Punjab, stands on the river Ravee—one of the five tributaries of the Indus. It is noteworthy as the former capital of the Sikhs, or native population of this part of India. **Delhi**⁶ (population, 154,000), on the right bank of the Jumna, is historically noted as the former capital of the Mogul empire (which in the 16th and 17th centuries embraced nearly the whole of India), and has acquired more recent fame from its siege by the British in 1857. **Mooltan** (population, 80,000) is on the river Chenab. **Peshawur** is

¹ Area, 81,403 square miles, population (1881), 32,600,000; 400 to the square mile.

² Area, 23,992 square miles, population (1881), 11,200,000; 466 to the square mile.

³ Notorious as the place where the great mutiny of 1857 broke out.

⁴ Area, 104,975 square miles, population

(1881), 22,640,643; 215 to the square mile. 19,000,000 of the inhabitants of the Punjab are British subjects.

⁵ Disastrous earthquake Dec. 12, 1875.

⁶ Visited by the Prince of Wales January 12, 1876. The Queen was proclaimed Empress of India at Delhi January 1, 1877.

situated to the west of the Indus, and not far distant from the entrance of the Khyber Pass. It is now connected by rail with Calcutta *via* Lahore and Allahabad, and with the rising port of Kurachee *via* Lahore and Mooltan.

The town of Simla, situated a few miles south of the upper Sutlej (within a district which adjoins the eastern extremity of the Punjab, and is politically attached to that territory), has within a recent period become a much-frequented place of resort for sanitary purposes, and is the frequent residence of the Governor-Generals of India. It lies at an elevation of 7800 feet above the sea, and enjoys an atmosphere which is free from the heat experienced in the lower plains.

4. The **CENTRAL PROVINCES**¹ include the interior districts enclosed between the upper courses of the Nerbudda and the Mahanuddy, and traversed from east to west by the Satpoora Mountains. This division was formed in 1861, previous to which year the various provinces were attached to the North-West Provinces and the Punjab. The natural productions of these provinces are rich and varied. Cotton, wheat, and opium are largely exported. The principal towns are Jubbulpore, Nagpore, and Saugor.

Jubbulpore, the capital, is an important commercial town, the traffic which passes through it being "larger than that of any other town in India except Bombay." Nagpore has 110,000 inhabitants, and was until 1854 the capital of the native state so named. It is connected by rail with Bombay. Saugor is an important military station.

5. **BRITISH BURMAH** belongs geographically to and is, therefore, described under "Further India."

6. **ASSAM**² was ceded by Burmah in 1825, and was included in the province of Bengal until 1874, when Lord Northbrook placed it under a chief commissioner. Although the soil is fertile, the province is very thinly peopled. The tea plantations for which it is chiefly famous are in the hands of English capitalists. The climate is tropical and the rainfall, especially in the Cassia states, excessive.³

The only considerable town is Gowhatty, the capital, on the left bank of the Brahmaputra. Seventy miles farther west is Goalpara, also on the Brahmaputra. The largest towns south of the hilly region (Garrow, Cossyah, and Jyntia Hills) are Sylhet and Cachar, both on tributaries of the Brahmaputra.

Bengal, North-West Provinces and Oude, Punjab, Central Provinces, British Burmah, and Assam, although virtually distinct governments, are subordinate to the Governor-General in Council in a greater degree than Madras and Bombay. The governors of Madras and Bombay can address the Secretary of State on all ordinary affairs directly; the other governors and chief commissioners can only do so through the Supreme Government at Calcutta.

¹ Area, 84,208 square miles, population (1881), excluding the feudatory states, 11,098,601, an average of 132 per square mile.

² Area, 45,308 square miles; population (1881), 4,815,157; 106 to the square mile.

³ At Cherrapunjee the annual rainfall amounts to 650 inches.

7. The **BOMBAY PRESIDENCY**¹ lies wholly on the western side of India, and is about 1000 miles in length. The native states, of which the largest are Cutch and Baroda, occupy about a third of the total area. The principal productions are cotton, rice, salt (Runn of Cutch), sugar, and indigo. The large province of **Scinde**,² which extends over both banks of the lower Indus, forms part of this presidency. It includes the following towns:—Bombay, Surat, Baroche, Poonah, Sattara, Hyderabad, and Kurachee.

The city of **Bombay** (645,000 *inhabitants*), the capital of the Presidency, is situated upon the island of Bombay, which closely adjoins the coast. Bombay has an excellent harbour, one of the best in India, and commands a large amount of foreign trade. It is historically noteworthy as one of the earliest English possessions in the East, having been part of the wedding-dowry given to Charles II. with his Portuguese bride, Catherine of Braganza, in 1661. **Surat** (107,000), to the north of Bombay, is at the mouth of the Tapti river. **Baroche**, farther north, is on the Nerbudda. **Poonah** (119,000) and **Sattara** lie to the eastward of the Ghauts, on the tableland of the Deccan. The most important place in the province of Scinde is the rising port of **Kurachee** (53,000), a short distance west of the mouths of the Indus. **Hyderabad** (24,000) is on the east bank of the Indus; near it is the village of *Meanee*, where Sir Charles Napier gained his famous victory in 1843.

8. **MADRAS PRESIDENCY** embraces a large part of central and southern India, including both the eastern and western shores of the peninsula, besides an extensive portion of the interior plateau.

It includes the old provinces of the Carnatic, Circars, Coimbatore, Malabar, and Canara. Its principal towns are Madras, Masulipatam, Coringa, Tranquebar, Arcot, Tanjore, Trichinopoly, Madura, Calicut, Cananore, and Mangalore.

The city of **Madras** (397,000 *inhabitants*), the capital of the Presidency, is on the Coromandel coast. It is destitute of any harbour, the sea in front being merely an open roadstead. Its commerce is, nevertheless, very considerable and increasing. The eastern coast of India is nearly devoid, throughout its entire length, of shelter for shipping, while the western (or Malabar) coast abounds in good natural harbours. **Masulipatam** (28,000) and **Coringa** are to the north of Madras—the former near the mouth of the Krishna river, the latter at the mouth of the Godavery. **Tranquebar** (23,000) is a seaport near the mouth of the river Cauvery, to the south of Madras; **Arcot** (53,000), **Tanjore** (80,000), **Trichinopoly** (76,000), and **Madura** (51,000) are inland cities. The old provinces of Malabar and Canara are upon the western side of the peninsula, stretching along the seaward face of the Ghauts. **Calicut** (30,000), **Cananore**, and **Mangalore** (11,500) are flourishing seaports, but the first-named of them has fallen from the importance which belonged to it in a former day.

The small province of **Coimbatore**, which is wholly inland, has on its northern border the group of the Nilgherrie Hills, which (like Simla in northern India) are resorted to for the sake of their cool and refreshing breezes. The sanitary station of **Ootacamund** (founded in 1822) is on the eastern side of the hills.

¹ Area (including Scinde) 123,142 square miles; population, according to the recent (1881) census, 16,430,527.

² Population of Scinde (1881), 2,404,934.

II. NATIVE STATES.

The Native States of India have a total area of nearly 600,000 square miles, and a population of about 55,000,000. There are upwards of 460 distinct states, a few only of which are of any considerable size or political importance. Many of the native states are attached to the various British provinces and presidencies, others are governed by their own princes or rajahs, but more or less controlled by residents and political agents appointed by the Governor-General, while two of the Himalayan states are entirely independent. We may therefore class the native states under three heads:—(1.) Dependent; (2.) Tributary States; and (3.) Independent States.

1. Of the *Dependent Native States*, the most important are:—

(1.) The Trans-Sutlej and Cis-Sutlej states, 43 in number; and Cashmere, attached to the Lieutenant-Governorship of the Punjab.

(2.) Sikhim, Cooch Bahar, Tipperah Hills, Chota Nagpore, and the Orissa Mehals, attached to the Lieutenant-Governorship of Bengal.

(3.) Jaipur, Pudukota, Travancore, and Cochin, attached to the Madras Presidency.

(4.) The states of Cutch and Guzerat in the north, and Kolapore, Sawunt-Warree, and South Mahratta states in the south, attached to the Bombay Presidency.

Of the above the principal are Cashmere, Sikhim, Travancore, Cochin, Cutch, and Guzerat.

(1.) *Cashmere* includes the celebrated valley of that name, which lies between some of the highest ranges of the Himalaya system, and is watered by the upper course of the river Jelum. Its breed of goats affords the fine hair which is woven into the celebrated Cashmere shawls. The capital is *Srinagar* (population, 150,000), which lies on the banks of the Jelum, at an elevation of about 5000 feet above the sea.

(2.) *Sikhim*.—This small state lies between the independent native states of Bhotan on the east and Nepal on the west, and is traversed by the lofty ranges of the Himalaya. The native rajah resides at *Tumtong*.

(3.) *Travancore* extends along the south-western coast of India, from Cape Comorin to the frontiers of Cochin on the north, and is limited on the east by the Cardamum Mountains. The greater portion of this state is covered with forests, but the coast districts are well cultivated and productive. The capital is *Trivandrum*, a seaport about 60 miles north-west of Cape Comorin.

(4.) *Cochin* is a small province immediately north of Travancore, and is similarly bounded on the east by the Cardamum Hills. The town of *Cochin* is situated near the mouth of a large inlet.

(5.) *Cutch* is a small peninsula separated from the adjoining peninsula of Kattywar on the south by the Gulf of Cutch, and from the mainland on the north by the vast salt-marsh known as the Runn or Rann. The *Rao*, as the sovereign is termed, resides at *Bhoq*, an inland town. The productions of the province comprise cotton, &c., and are mostly exported from the port of *Mandivee*, on the south coast.

(6.) *Guzerat* is the general name for the territories east¹ and west of the Gulf of Cambay. Of the numerous native states the most important is *Baroda*,² which is under the rule of a sovereign styled the Guicowar.

2. Of the *Tributary Native States* the principal are those of Rajpootana, Central India, Hyderabad, and Mysore.

¹ The peninsula of Kattywar.

² Population (1881), 2,154,469.

(1.) **Rajpootana**, in the north-western part of India, is the name given to an extensive tract of country, within which are embraced numerous small states ruled by native rajahs. The southern part of this territory is traversed by the Aravalli Hills, to the south and west of which extends the *Thurz* or Great Indian Desert. Although measuring about 450 miles from north to south, and over 500 miles from east to west, the total population in 1881 only amounted to 10,881,166. The ruling people in all the states are the proud and warlike *Rajpoots* (hence the name of the country). Of the larger Rajpoot principalities the most important are *Oodeypore* (Oudipur) and *Jeypore* (Jaipur), but *Jhodpore* is the largest. The government of all the states is more or less under the control of British political agents, subordinate to the principal agent, who resides at Ajmere,¹ the chief town of a British district in the Aravalli Hill region. Between the north-west frontier of Rajpootana and the Indus and Sutlej lies the native state of *Bhawulpore*. The town of Bhawulpore is situated on the banks of the Sutlej, about 60 miles south of Mooltan.

(2.) The states of **Central India** (Indore Agency), between Rajpootana and the Central Provinces, have an estimated area of about 80,000 square miles, and are about 170 in number. The largest state is that of *Gwalior*, governed by the Maharaja Sindia, but the British agent resides at *Indore*, the capital of the dominions of the Maharaja Holkar. Sindia's territories embrace the greater part of the tableland of Malwa. The famous hill-forts of the capital, Gwalior, were taken by the British in 1842. *Bhopal* is a small but important Mohammedan state in the Vindhya Mountains.

(3.) **Hyderabad**, the most extensive of the native states, is under a ruler who bears the title of Nizam. It is wholly inland, comprising great part of the tableland of the Deccan. Not far distant from *Aurangabad*, in the north-west part of this territory, is the little town of *Assaye*, where the Duke of Wellington (then Sir Arthur Wellesley) gained one of his splendid victories in 1803. The capital, *Hyderabad* (Haiderabad), on a tributary of the Krishna, is strongly fortified. During the minority of the Nizam, the government is administered by a regency, advised on all important affairs by the British Resident.

(4.) The state of **Mysore**,² which is also inland, is surrounded by the territories of the Madras Presidency. The city of *Seringapatam*, seated on an island in the Cauvery river, played a distinguished part in the wars of the last century, when it was the capital of Hyder Ali's extensive dominions. Under his son and successor, Tippe Saib, it was stormed by the British in 1799. Owing to the misgovernment of the native ruler, this state was placed under a British commissioner in 1832, but on March 25, 1881, it was formally transferred to the Maharaja. The present capital, *Mysore*, lies about 20 miles south-east of the former capital, *Seringapatam*. The only territory in Mysore now held by the British is the fort and cantonment of *Bangalore*, near the eastern border.

3. The most important *Independent States* are Nepal and Bhotan, on the southern slopes of the Himalaya.

(1.) **Nepaul** (Nepal) lies between the feudatory states of Sikhim on the east and Kumaon on the west, and is separated from the British provinces of Oude and Bahar by the pestilential Terai (Tarai). Though enclosed on the north by the lofty ranges of the Himalaya, the Nepalese carry on considerable trade with Tibet. Until the British invasion of 1815, the country was virtually a dependency of the Chinese Empire. In that year, however, a British Resident was placed at *Khatamandu*, the capital.

(2.) **Bhotan** (Bhutan or Bootan) extends east of Sikhim, and comprises the almost unknown and mountainous region lying between the main ridge of the Himalayas and the British provinces. The inhabitants, apparently of Mongolian origin, profess Buddhism, and are under the rule of a temporal (Deb) and a spiritual (Dhurma) rajah. The chief towns are probably those of *Punakha* and *Tassisudon*.

¹ Population (census 1881), 455,944.

² Population (census 1881), 4,186,499.

III. FOREIGN POSSESSIONS.

Besides the English, two other European nations—the French and the Portuguese—possess a few stations in India, of exceedingly trifling note, both as to size and commercial value.

To the FRENCH belong—**Pondicherry**, a seaport town lying to the south of Madras; **Mahé**, on the Malabar coast (a few miles north of Calicut); and **Chandernagore**, a small town on the Hooghly river, north of Calcutta. These are the remains of a power which long contested with Britain the sovereignty of India.

The PORTUGUESE possessions consist of **Goa**, a small territory lying on the west coast of India, between the limits of the Bombay and Madras Presidencies; the port of **Damaun**, to the north of Bombay; and the town and port of **Diu**, situated on an island off the south coast of Guzerat. The city of Goa was long a splendid emporium of commerce, the chief mart of the Eastern world, but its importance has wholly passed away.

QUESTIONS ON INDIA.

1. How is India bounded, and what is its area?
2. Describe briefly the coasts of India.
3. By what names are the opposite coasts of India distinguished?
4. Give a brief account of the natural features of Ceylon. What two articles constitute its most characteristic products?
5. Point on the map to the places of the following:—Colombo, Trincomalee, the Laccadive Islands, the Maldive Islands, and the Andaman Islands.
6. What mountain-chains and tablelands belong to India?
7. What portion of India is the Deccan, and what are its natural features?
8. Where is the Great Indian Desert?
9. Describe the principal rivers of India.
10. What kind of climate has India?
11. Mention some among the natural productions of India, mineral and vegetable.
12. Where is the tract known as the Runn of Cutch?
13. What is the total population of India? Which parts of the country are most populous?
14. Besides Hindus, what other races are included amongst the population of India?
15. What form of religion is professed by the great majority of the Hindu people?
16. Give some particulars concerning the industrial productions of India.
17. How is India divided? What portion of the whole comes under the designation of British India?
18. What are the limits of the province of Bengal?
19. Where are the North-West Provinces and Oude?
20. What is Assam chiefly noted for?
21. Where is the Punjab, and why is it so called?
22. What do you know of the Central Provinces? Name the chief towns.
23. Upon what rivers are Calcutta, Benares, Allahabad, Lucknow, Cawnpore, and Agra situated?
24. Where is Plassey and Simla, and for what are they noteworthy?
25. Where and for what is Delhi celebrated?
26. In what part of India are Lahore, Mooltan, and Peshawur? Point out their places on the map.
27. What part of India is included within the Bombay Presidency?
28. Where is the city of Bombay? By what is it historically distinguished?
29. Where are Poona, Sattara, Surat, and Baroche?
30. Where is Scinde? Which is its port?
31. Name some of the provinces that are within the Madras Presidency.
32. Where is the city of Madras? What kind of site does it occupy?
33. Where are Arcot, Masulipatam, Tranquebar, Trichinopoly, and Tanjore?
34. Where is the tract of the Nilgherrie Hills? For what is it noteworthy?
35. Where are Calicut, Cananore, and Mangalore?
36. Enumerate as many as you can of the "dependent" native states of India.
37. In which of the above states are the towns of Srinagar, Trivandrum, Cochin, Bhoj, Mandivee, and Baroda, respectively?
38. Point on the map to the locality of Cashmere. For what branch of industry is it noted?
39. Name the principal "tributary" native states.
40. State what you know of Rajpootana and Central India.
41. Describe briefly the states of Hyderabad and Mysore.
42. What states south of the range of the Himalaya are still independent?
43. What two other nations, beside Britain, possess territories in India? Name some of the possessions of each.

INDO-CHINESE COUNTRIES.

FURTHER INDIA (or the Indo-Chinese peninsula) forms the south-easterly division of the Asiatic continent. It embraces the extensive peninsula which extends from the Bay of Bengal on the west to the China Sea on the east, and which stretches to the southward into the smaller and more elongated Malay peninsula.

Four distinct countries are comprehended within this region, besides considerable territories which are under the sovereignties of Britain and France, together with several small Malay states. The four countries are the empires of Burmah and Anam, and the kingdoms of Siam and Cambodia. *Burmah* embraces part of the interior, towards the western side of the peninsula; *Siam* includes its middle portion, with the shores of the Gulf of Siam; *Anam*, or Cochin-China, is its eastwardly division. *Cambodia* lies between the kingdom of Siam and French Cochin-China. In climate and productions these countries have many points in common, and they are inhabited by a race which is in all essential respects the same.

BOUNDARIES.—Further India is bounded on the *north* by China, on the *east* and *south* by the China Sea, and on the *west* by the Strait of Malacca and the Bay of Bengal.

EXTENT.—The total *area* of the territories thus bounded is about 873,000 square miles,¹ of which the British provinces occupy 90,000, the French dependency, 21,700, and the native states, 761,300.

COASTS.—Very extensive, and possessing several fine harbours.

The most noticeable features along the coasts of the Indo-Chinese peninsula are the two great *Gulfs of Tonquin* (or Tong-King) and *Siam*, both arms of the China Sea on the east, and the *Gulf of Martaban*, opening into the Bay of Bengal, on the west. The two principal headlands are *Cape Negrais*, on the west, and *Cape Romania*, on the south. The latter is not only the southernmost point of the Malay peninsula, but also of the Asiatic continent. The *Strait of Malacca* divides *Malaya* from the island of *Sumatra*, and forms the main channel of communication between the Bay of Bengal and the China Sea.

NATURAL FEATURES.—Ranges of high ground, lying in the general direction of north and south, with long river-valleys between, form the characteristic features of the Indo-Chinese peninsula. These are connected, to the northward, with the high region that adjoins the eastern extremity of the Himalaya and the neighbouring provinces of China.

1. **Mountains.**—Of the mountain-ranges the best known are the *Yoma Mountains*, which form the natural boundary between *Aracan* and *Burmah* proper, and farther north the *Patkoi range*, between *Burmah* and *Assam*. A long range seems to extend from the southern borders of *Burmah* to the end of the Malay peninsula. The northern portion, known as the *Mountains of Siam*, forms the boundary between *Siam* and the *Tenasserim* province.

2. **Plains.**—There are three extensive plains in this region—the *Plain of Pegu*, the *Plain of Siam*, and the *Plain of Tonquin*. The *Plain of Pegu* adjoins the *Gulf of Martaban*, an off-set of the Bay of Bengal; the *Plain of Siam* lies at the head of the *Gulf of Siam*, which is an arm of the China Sea; the *Plain of Tonquin* adjoins the *Gulf of Tonquin*, which is a more northerly arm of the China Sea.

¹ Nearly fifteen times the area of England and Wales.

3. **Rivers.**—The Indo-Chinese peninsula has four great rivers—the *Irawady*, *Saluen*, *Menam*, and *Mekon*. The Irawady and Saluen flow into the Gulf of Martaban; the Menam into the Gulf of Siam; and the Mekon into the China Sea. The Irawady rises on the Chinese frontier, and has a total length of 1000 miles, 900 of which (from Rangoon to Bamo) are navigable. The Saluen rises in Yunan, and has a course of 750 miles, the greater portion of which is navigable. The Mekon (Me-kong) rises in Tibet and thence flows through Yunan, Burmah, Siam, Cambodia, and Cochin-China. It has a total length of 1700 miles, but its navigation is rendered difficult by rocks and sandbanks. The basin of the Menam (or Meinam) is entirely within the kingdom of Siam. The Menam, like the Nile, annually overflows its banks, and thus fertilises the country through which it flows.¹

CLIMATE.—Throughout the Indo-Chinese countries the climate is hot, especially so in the low grounds near the coast, where the air is often unhealthy. The rains are very abundant, but are confined to a brief season of the year.

As in India proper, the changes of the seasons depend upon the monsoons. In the long and narrow region of the Malay peninsula, the heat of the Torrid Zone is tempered by the influence of the seas on either side, and the climate of Singapore, at its southward extremity, is not so hot as that of Madras.

PRODUCTIONS.—In all these countries the productions of the vegetable kingdom are of the highest value. The forests comprehend many valuable kinds of wood, and various *drugs*, *spices*, and *gums* are native to this region. The mineral wealth is also considerable, and *gold* is extensively employed in Siam for purposes of architectural adornment and numerous other uses.

INHABITANTS.—Burmah is believed to contain about four millions of inhabitants; Siam between five and a half millions; Anam, twenty-one millions; Cambodia and the independent Malay States, one million; French Cochin-China, one and half million; and the British territories about four millions; so that the entire region contains about thirty-seven millions of inhabitants.

Race and Language.—The Indo-Chinese are a race bearing more resemblance to the Chinese than to the people of India. They are more robust in frame than the Hindus, but are short in stature, compared to the European type. Their skin is of a dark shallow brown or olive colour. The various languages spoken are monosyllabic, and are closely allied to the Chinese and Tibetan tongues.

Religion.—The Buddhist worship uniformly prevails, and its rites are celebrated with great pomp and display. The temples are gorgeously decorated, and there is much of barbaric wealth and splendour in the palaces of the sovereigns and the chief nobles.

INDUSTRY.—The industry of these countries is principally agricultural. Rice is the prime article of food. The sugar-cane is extensively grown, especially in Siam. The mulberry is also an object of extensive culture, for the sake of the silkworm, which is largely reared in Cochin-China and Tonquin. Cotton, indigo, and tobacco are grown; but the produce of these and other articles of tropical growth is due rather to the spontaneous fertility of the soil than to any skill bestowed upon their culture.

¹ Hence its name, "Me-Nam," "Mother of waters."

Commerce.—A large amount of trade is carried on by the people of Siam and Cochin-China. The Chinese are the chief agents in this traffic. Great numbers of Chinese are settled in the cities of Siam and Cochin-China, and the maritime traffic of south-eastern Asia (both insular and continental) is chiefly in their hands. The English commerce with these countries has been extending of late years, especially in the case of Siam.

GOVERNMENT.—The native governments of all these countries are despotic, and the condition of the people is, in most respects, one of semi-barbarism. The most abject and servile submission is exacted from the inferior ranks by their superiors of every grade. The punishment of offences is marked by extreme severity, as, indeed, is the case in all Asiatic countries.

British Burmah is placed under a chief commissioner, and politically forms one of the great provinces of India. The Straits Settlements were separated from the Indian government and formed into a crown colony in 1867.

DIVISIONS.—The political divisions of the Indo-Chinese Peninsula, with their chief towns, are shown in the following table :—

Divisions.	Chief Towns.
British Burmah, ...	Rangoon, Akyah, Moulmein, Prome.
The Empire of Burmah, ...	Mandalay, Amarapura, Ava, Bamo.
The Kingdom of Siam, ...	Bangkok, Ayuthia, Paknam.
The Empire of Anam, ...	Hue, Kesho or Ha-noi.
The Kingdom of Cambodia, ...	Udong, Phomping, Kampot.
French Cochin-China, ...	Saigon, Mitho.
Independent Malay States, ...	Perak, Pahang, Johore, &c.
The Straits Settlements, ...	Singapore, George Town, Malacca.

1. **BRITISH BURMAH** consists of three provinces acquired from Burmah. The northern and southern provinces (Aracan and Tenasserim) were annexed in 1825, at the close of the first Burmese war. The central province (Pegu) was annexed in 1852, after the second Burmese war. These three divisions were formed into the province of British Burmah in 1862. The government of the province is vested in a *Chief Commissioner*, subordinate to the Governor-General and Council of India. The seat of government is **Rangoon**, a large town on the eastern branch of the Irawady. The total area of the province is estimated at 88,556 square miles, and the *population*, according to the recent (1881) census, 3,704,253, being an increase of 34 per cent. since 1872.¹

(1.) **ARACAN** is a narrow strip of country lying along the east side of the Bay of Bengal. Its moist climate and marshy plains enable it to furnish a vast quantity of rice, which is exported from **Akyah**, the capital. **Aracan**, the old capital, is on a river of the same name about 50 miles from the sea.

(2.) **PEGU** was formerly the southwardly province of Burmah. It includes the delta of the Irawady, a fertile but unhealthy region. Although the area of this division is only twice that of Aracan, it has five times the population. The staple product is *rice*. There are also vast forests of

¹ This large increase is chiefly due to immigration.

teak and other valuable tropical woods. **Rangoon** (*population*, 132,004),¹ on one of the branches of the river, is an important seat of trade, and the capital of the whole province. Farther north, near the Burmese frontier, is the large town of **Prome**, on the left bank of the Irawady.

(3.) The provinces known by the general name of **TENASSERIM** extend along the eastern side of the Gulf of Martaban. The climate is tropical, and the productions include *rice*, *cotton*, *indigo*, &c. Most of the land, however, is covered by vast forests, and *teak* and other woods are largely exported. **Amherst**, **Tavoy**, and **Mergui**² are small seaports, but with considerable trade. The town of **Moulmein** (*population*, 46,472),¹ near the mouth of the river Saluen, is their chief port, and is an important seat of trade.

2. **BURMAH** occupies the north-western portion of the peninsula, and is now entirely inland, all the maritime provinces which formerly belonged to it having been annexed to British India. Its present *area* is estimated at 190,500 square miles (or about three times that of England and Wales), and its *population* at 4,000,000.

Burmah is physically divisible into the three great valleys of the Irawady, Saluen, and Mekon. That of the Irawady forms, in fact, an extensive plain, bounded on the west by the *Yoma Mountains*. The climate is tropical, and the productions include *rice* (the staple crop), *wheat*, *maize*, *tobacco*, *cotton*, *indigo*, *teak*, &c. The mineral wealth is also considerable, *iron*, *lead*, *copper*, *petroleum*, and *coal* being widely diffused; some *gold*, *silver*, and *precious stones* are also found. The Burmese government is an absolute monarchy, but by the Treaty of 1867 the British political agent at Mandalay,³ the capital, has certain powers of civil jurisdiction. The industries (agriculture and manufactures) are inconsiderable. The Irawady is the main channel of communication, and is now regularly navigated by steamers as far as **Bamo**, near the Chinese frontier. Nearly all the large towns of Burmah have been at one time the capital of the empire. The present capital is **Mandalay** (*population*, 100,000), on the left bank of the Irawady. Further south are the former capitals of **Amarapoora** and **Ava**, also on the banks of the same river. About one hundred miles south of Ava are the ruins of the ancient capital city of **Pagan**, with its numberless temples.

3. **SIAM** occupies the central part of the peninsula, and consists, physically, of two well-marked divisions—the main portion lying north of Cambodia, between Anam on the east and the Tenasserim provinces on the west; and a narrow strip of territory extending south and consisting of the isthmus and the north-easterly portion of the peninsula of Malaya. The *area*, including the semi-independent Shan (Hill) States in the north, is probably upwards of 300,000 square miles, or about five times that of England and Wales. The *population* is variously estimated at from 5,000,000 to 10,000,000, and consists of Siamese, Chinese, Laotians, and Malays.

The characteristic physical features of the mainland of Siam are similar to those of Burmah, and include the extensive valleys and plains of the Menam and Mekon. The basin of the former is entirely within Siam; the latter waters successively the Chinese province of Yunan, Eastern Burmah, Siam,

¹ Census, 1881.

² Large quantities of edible birds' nests, so highly esteemed as an article of luxury by the Chinese, are exported from the islets of the *Mergui Archipelago*.

³ Owing to the doubtful attitude and actions of the present king, the British representative has been temporarily withdrawn from Mandalay.

Cambodia, and French Cochin-China. The northern highlands, inhabited by various Shan tribes, are almost entirely unknown. The climate is tropical, and the natural productions are rich and varied. Much of the country is covered with dense forests, and teak, &c., are largely exported. The staple export of Siam is rice. There are some manufactures (pottery, iron, &c.), but on a limited scale. In fact, the trade and industry of the country is paralysed by the serfdom in which the lower classes are kept by the nobles. In all parts of Siam the natives are subject to forced labour for three or four months in the year. The kingdom is divided for administrative purposes into 41 provinces, each under a *phaja* or governor. The form of government is an absolute monarchy. There are two kings—one being the actual reigning sovereign, and the other the commander-in-chief of the army. The capital of Siam is the busy port of **Bangkok** (*population*, 500,000), on the left bank of the Menam, about 20 miles from the sea. A large number of the inhabitants of this "Venice of the East" live in boathouses on the river. About 45 miles north of Bangkok lies **Ayuthia**, the former capital.

4. **ANAM**, or Cochin-China proper, lies on the eastern side of the Indo-Chinese peninsula, and is bounded by the Chinese provinces of Kwang-Si and Yunan on the north; Cambodia, Siam, and Burmah on the west; and the China Sea on the east. The total area of the Anamese Empire is probably not far short of 200,000 square miles (or nearly three and a half times that of England and Wales), and its population is estimated at upwards of 20,000,000.

Anam consists, physically, of three main divisions—the wide basin of the Song-ka river in the north, a narrow coast-district bounded inland by a lofty chain of mountains, and the almost unknown interior tract between the southern portion of this range and Cambodia. The first of these divisions forms the province of *Tonquin*. Its rich alluvial plains produce abundance of rice, which is largely exported from **Kesho**¹ (Ha-noi), a busy river-port and the capital of the province. The southern division of Anam (sometimes called *Upper Cochin-China*) is well watered by numerous short rivers, on one of which lies **Hue**, the capital of the empire. Hue is strongly fortified, and has about 60,000 inhabitants.

5. **CAMBODIA** was formerly an extensive and powerful kingdom, but the aggressions of Anam and Siam had, at the time of the French conquest of Lower Cochin-China, resulted in the annexation of most of the provinces and the subjection of the rest to Siam. The latter were, however, erected into an independent kingdom by the treaty of 1863 between France and Siam. Its present *area* is estimated at 30,000 square miles (or rather more than half the size of England and Wales), and its *population* at about 900,000.

Physically, Cambodia is included in the basin of the Mekon river. In the forest region of the west is the great lake of *Tali-Sap* or *Bien-ho*, which is drained into the Mekon by the Tali-Sap river, on which stands **Udong**, the present capital. The internal trade, however, centres at **Pnompeng**, at the junction of the Tali-Sap and Mekon, and the foreign trade at the port of **Kampot** on the south-east coast.

6. **FRENCH COCHIN-CHINA** is bounded by the sea on the south and east, and by the kingdoms of Cambodia and Anam on the north. Its *area* is estimated at 22,000 square miles (about three-sevenths that of England and Wales), and its *population* at 1,600,000.

¹ In March 1874 a treaty was concluded between France and Anam by which **Kesho** was made a free port.

Physically considered, French Cochinchina comprises the delta of the Mekon river and portions of the adjoining plains. The country is one of the most fertile in the peninsula, but also, on account of its hot and moist climate, one of the most unhealthy. Large quantities of *rice* (the staple produce), *cotton*, *tobacco*, *indigo*, *teak*, &c., are exported from the river-port of *Saligon* (population, 100,000), the capital, on a branch of the Mekon delta. The other chief towns are *Bathak* and *Vinlong*.

7. **INDEPENDENT MALACCA** comprises the whole of the Malay peninsula south of the territories conquered and annexed in 1821 by Siam, with the exception of the British possessions on the west coast.

The interior, apparently covered with forests and jungles, is but little known, and is inhabited by aboriginal tribes, who retreated thence on the conquest of the coast-districts by the Malays. Of the independent Malay States¹ the principal are those of Perak and Salangore on the west coast, and Pahang and Johore on the east.

8. **THE STRAITS SETTLEMENTS**² form a distinct dependency of the British Crown. They comprise Penang, Wellesley Province, Malacca, and Singapore, and have a total area of 1445 square miles, and a population of about 350,000.

(1.) *Penang*, or Prince of Wales' Island, is a small but beautiful and fertile island off the west coast of the Malay peninsula. It was ceded to the East India Company in 1785 by the Raja of Kedah (or Queda).

(2.) *Wellesley Province*, on the mainland opposite Penang, was acquired in 1800, and forms a dependency of Penang.

(3.) *Malacca*, the largest as well as the oldest of the Straits Settlements, comprises a strip of territory on the west coast of the peninsula about 240 miles south of Penang. The town of *Malacca* has about 5000 inhabitants, but its formerly important trade has declined since the purchase³ and settlement of Singapore.

(4.) *Singapore*, at the extremity of the Malay peninsula, is the most important commercial station of this region, and is one of the great marts of British commerce in the East. The town of *Singapore* (population, 90,000) is upon an island of the same name, which is divided from the mainland by a narrow strait. Singapore is the seat of the general government of the Straits Settlements, and its already great trade is rapidly increasing.⁴

QUESTIONS ON THE INDO-CHINESE COUNTRIES.

1. In what part of Asia is the Indo-Chinese peninsula situated? By what seas is it bordered upon either side?

2. What countries are contained within the Indo-Chinese peninsula?

3. Name the mountains, plains, and rivers that belong to this region.

4. Describe briefly the climate and natural productions of this region.

5. What race of people constitutes the inhabitants of these countries? What form of religion prevails?

6. What is the distinguishing feature of their industry?

7. Under what kind of government are these countries?

8. What portions of the Indo-Chinese peninsula belong to Britain? Describe

¹ Named after the chief town in each.

² So called from their position on the Straits of Malacca.

³ By Sir Stamford Raffles, in 1819, from the native Malay prince of Johore.

⁴ The commercial importance of these

small settlements may be inferred from the fact that in 1879 the total imports amounted to £16,960,000, and the exports to £15,857,000. In the same year the direct trade with the United Kingdom alone was valued at £5,747,000.

briefly the provinces of British Burmah.

9. In what provinces are the towns of Akyab, Rangoon, and Moulmein?

10. What article of produce is derived extensively from Aracan? What conditions of physical geography favour this?

11. What are the principal natural features of Burmah proper?

12. What is the form of government? Name the chief towns.

13. What part of the peninsula does Siam occupy?

14. What river is entirely within Siam?

15. What hinders the development of the trade and industry of Siam?

16. What is the form of government? On what river is the capital?

17. What are the present boundaries of the Empire of Anam?

18. Anam consists physically of three main divisions. Name them.

19. Where is Cambodia?

20. Name the chief towns of Anam and Cambodia.

21. What portion of Further India belongs to France? Describe its climate and productions.

22. Name the principal independent states of Malacca.

23. Why are the "Straits Settlements" so called? Which is commercially the most important?

THE CHINESE EMPIRE.

The CHINESE EMPIRE extends over more than a fourth part of Asia, and comprises an area which is considerably greater than that of all Europe. But China itself constitutes a portion only of this widely-extended dominion. Tibet, Mongolia, parts of Manchooria and Turkestan, with Corea, besides China proper, are included within the Chinese Empire.

I. CHINA.

China is a large country of eastern Asia, and is by far the most important portion of the Chinese Empire.

BOUNDARIES.—China proper¹ is bounded on the *north* by Mongolia; on the *east* by the Pacific Ocean; on the *south* by the China Sea, Anam, and Siam; on the *west* by Burmah and Tibet.

China is divided from Mongolia by the *Great Wall of China*, a vast rampart of earth 10 to 30 feet high, which runs over hill and valley for 1250 miles along the northern border-line of China, and was built in order to protect the country from Tartar invasion—a purpose which, like all similar works, it failed to fulfil.

EXTENT.—The area of China is estimated at 1,534,000 square miles, which exceeds by twenty-six times the magnitude of England and Wales, or nearly twelve times the entire area of the British Islands.

The direct distance from the most southerly point of the province of Kwang-tung to the great wall north of Pekin, is 1500 miles, or to the northern limit of the transmurial province (Leao-tong), about 1750 miles. In the south, the width along the 24th parallel, from the Burmese frontier near Bamo to Amoy, is 1350 miles, or rather more than the distance between the extreme eastern point of the province of Shang-tung and the western boundary of Kan-su in the north.

¹ The Chinese frequently call China proper *Sai-pa-shing*, or "the eighteen provinces."

COASTS.—The coast-line of China is extensive, being upwards of 2500 miles, or, if we include the minor indentations and inlets, 5000 miles, equivalent to 1 mile of coast to every 300 square miles of area. A vast number of islands and islets skirt the coast, especially between the mouths of the Canton river and the Yang-tsze-kiang. The principal features are :—

1. **INLETS.**—The Gulfs of Pe-che-lee and Leao-tong, the Bays of Corea and Hang-chow, and the Gulf of Tonquin.

2. **STRAITS.**—The *Strait of Pe-che-lee*, between the gulf of the same name and the Yellow Sea; the *Strait of Formosa*, between the East Sea and China Sea; and the *Strait of Hainan*, between the China Sea and the Gulf of Tonquin.

ISLANDS.—The principal islands are Formosa, Hainan, Hong-Kong, and Chusan.

1. **Formosa**, or the Beautiful, was so called by the Portuguese; the Chinese call it *Tai-wan*, or "Tower Bay," from its principal port. The western districts only are completely subjugated, the central and eastern portions are still occupied by independent aboriginal tribes.

2. **Hainan**, 180 miles long by 100 broad, lies in the south between the China Sea and the Gulf of Tonquin. The coast districts are occupied by the Chinese, but the aboriginal and barbarous tribes of the interior are virtually independent. Its capital is *Kien-Chow*, a populous city on its northern coast. Its chief port, *Kiung-Chow*, on the south-west coast, is open to foreign trade.

3. **Hong-Kong** was ceded to Britain in 1842.¹ It is hilly, well-watered, and tolerably healthy, and its situation, off the mouth of the Canton river, gives it political and commercial importance. Its area is 36 square miles. Its population, which numbers about 140,000,² consists principally of Chinese. The chief town is *Victoria*, on the north coast of the island.

4. **Chusan**, the largest of a group of islands off the entrance to Hang-Chow Bay, was taken by the British in 1840, and held for some time as a guarantee for the payment of the war indemnity.

MOUNTAINS.—The greater part of China is mountainous. Its western and south-western provinces especially are covered with high mountain-chains, the peaks of which rise above the snow-line.

All the great ranges within China have a general east-to-west direction, *e.g.*, the ranges of the *Pe-ling*³ and *Nan-ling*⁴ which enclose the basin of the Yang-tsze-kiang; the former separating it from that of the Hwang-ho on the north, and the latter from that of the Si-kiang (or Choo-kiang) on the south. The *Pe-ling* range dips south-east in 113° W. long., and terminates in low hills about two degrees farther west. The *Nan-ling*, on the contrary, after an almost direct course due east for upwards of 1000 miles, curves abruptly north-north-east at a point (25° N. lat., 116° W. long.) about 150 miles west of the port of Amoy, and trends in that direction almost parallel to the coast for 400 miles, finally terminating in the hilly region west of Hang-chow. This portion of the range is known as the *Ta-ju-ling* or *Bohea Mountains*. The lofty mountain-chain on the western border which marks the eastern limit of the great tableland of central Asia bears the name of *Yung-ling*. Of the minor ranges the most important are (1.) the *Ta-pa-ling*, a southerly spur of the *Pe-ling* Mountains, lying between the Yang-tsze-kiang and its great northern affluent, the Han-kiang; (2.) the *Yu-ling*, a minor ridge of the *Yung-ling*, extending eastwards between the basins of the Si-kiang or Canton river and the Song-ka.

¹ Hong-Kong was taken possession of in 1841, but formally ceded in 1842. The opposite peninsula of Kowloon was ceded in 1861.

² (Census 1876) 139,144, of whom 130,168 were Chinese.

³ *Pe-ling*, "northern mountains."

⁴ *Nan-ling*, "southern mountains."

PLAINS.—The north-eastern part of China forms the extensive lowland known as the *Plain of China*, which is 700 miles long and covers an area of more than 200,000 square miles. The lower courses of its two great rivers are through this plain, which is very fertile, and constitutes the most populous portion of the Chinese Empire.

RIVERS.—The four most important rivers of China are the Yang-tsze-kiang, Hwang-ho, Si-kiang, and Pei-ho, which together drain more than four-fifths of its total area.

1. The Yang-tsze-kiang¹ is the longest river in the eastern half of the globe, and is navigable for large vessels to I-chang, 1000 miles from the sea; and for 800 miles farther for smaller vessels and boats. Its total length is 3000 miles, and at Hankow, 700 miles inland, it is fully a mile in width, but its depth and volume vary throughout with the seasons.

2. The Hwang-ho, like the Yang-tsze-kiang, rises in the plateau of central Asia, but is not so capable of navigation, owing to sudden changes of depth and volume, and sometimes of channel. Previous to the great floods of 1851-53, its outlet to the sea was only a short distance north of the mouth of the Yang-tsze-kiang, but it then altered its course, and at present flows into the Gulf of Pe-che-lee.

3. The Si-kiang,² or Canton river, 1100 miles long, waters the provinces south of the Nan-ling mountains, and is an important commercial waterway.

4. The Pei-ho is formed by the confluence of several rivers at Tientsin, and flows into the Gulf of Pe-che-lee.

5. Of the minor rivers that water the districts between the basins of these four great rivers, the most important are (1.) the *Min*, which rises in the Bohea mountains and drains the maritime province of Fo-kien; (2.) the upper courses of the *Song-ka*,³ *Mekon*,⁴ and *Saluen* are within the south-eastern province of Yunan; their middle and lower courses belong to Farther India.

LAKES.—Three large lakes, Po-yang, Tong-ting, and Tao-hoo, adjoin the course of the Yang-tsze-kiang.

CLIMATE.—The climate of China is generally temperate, but it is one of great extremes at opposite seasons. The summers are very hot, and the winters excessively cold. This is the case all over central and eastern Asia.

PRODUCTIONS.—Of natural productions, the *tea-plant* is the most remarkable. It is a shrub of moderate size, which grows abundantly in the south-eastern provinces of the country (Kwang-tung, Fo-kien, and Che-kiang), where it is cultivated with great diligence. The leaves are gathered at particular seasons, and according to the period at which they are picked, and the process of drying which they afterwards undergo, they form either the black or green teas of commerce.

1. China abounds in useful and valuable productions of the vegetable world. The *orange*, *mulberry*, *juyube*, *sugar-cane*, and *cotton-plant* are native to its soil, and flourish throughout its middle and most favoured belt of country.

¹ The Yang-tsze-kiang rises among the southern slopes of the Kuen-lun mountains, and its upper course is divided from the headwaters of the Hwang-ho by the *Bain-kharu-poola* mountains, as the south-easterly spur of the Kuen-lun is called.

² The Si-kiang is frequently misnamed

Choo-kiang. The latter term is really the name of one of its delta branches (that on which the town of Canton stands), which forms the common estuary of the Si-kiang and Pe-kiang.

³ Song-ka, Chinese, *Hong-kiang*.

⁴ Mekon, Chinese, *Kien-lung*.

2. The mineral produce is also of high value. Good coal¹ abounds. The mountain provinces of the south-west yield the precious metals, and ores of iron, copper, lead, tin, and mercury are extensively distributed through various parts of the country.

INHABITANTS.—China is said to contain upwards of three hundred and sixty millions of inhabitants, a number which probably equals a fourth part of the human race. It is by no means certain that this is the case, but it is not improbable, and the amount—vast as it is—implies a less ratio of population to the square mile than occurs in England.²

China abounds in large cities, and the banks of its rivers and canals literally swarm with human life. Great numbers of Chinese emigrate annually, and they are settled numerously in every part of the Eastern Archipelago, as well as India, Australia, and California.

Education and Religion.—Education is general, and well advanced. All government appointments are given to candidates successful in repeated competitive examinations. There is no national or state religion, although *Confucianism*, which is mainly professed by the higher and learned classes, is sometimes regarded as such. The lower classes are mostly *Buddhists*, while vast numbers are attached to the degrading superstitions of *Taouism*.

INDUSTRY.—The industry of China embraces alike agriculture, manufactures, and commerce. The mass of the population derive their subsistence from the soil, which is tilled with extreme care, and the pursuit of *agriculture* is held in the highest esteem. Rice is the chief article of food. Of *manufactures*, silk and cotton are the most important. The silkworm is a native of China, and is reared in vast numbers throughout the middle and southern provinces.

The manufacture of earthenware is also of national importance, and the term by which the finer description of pottery is commonly known in our own country indicates the fact of its original derivation from China. A great number of earthen and other mineral substances are employed in this manufacture, and a place called Kin-te-ching (in the inland province of Kiang-see, south of the Yang-tze river) is its central seat. The carving of ivory, the making of caddies, trays, and other lacquered ware, various works in metal, and, more than all, the art of printing from raised blocks, indicate the skill and ingenuity of the Chinese artisan.

Commerce.—The trade of China is immense.³ Tea is supplied thence in vast quantities, not only to the different countries of Europe and the United States, which maintain a maritime intercourse with the Chinese ports, but also, by overland traffic, to the countries of northern and central Asia. Tea is not less a necessary of life to the Mongol shepherd and the half-savage Kirghiz than to the civilised native of European lands.

¹ There are large coalfields in all the provinces of China proper, yet the annual output is under three million tons. The coalfields of the United Kingdom are much less extensive than those of China, but the quantity produced in 1879 was 133,800,000 tons.

² Taking the Chinese official estimates of the area and population as correct (1,534,000 square miles, 362,447,000 inhabitants), the average density of population is 236 per square mile. In England the average is 462, nearly the same as that in the north-eastern provinces of Pe-che-lee and Shan-tung. In the transmaral province of Shêng-king (or Leaotung), in the extreme north-east, the average is only 10 persons per square mile, and in Yunnan, in the south-west, only 51; but in

the two provinces of the lower Yang-tze-kiang (Ngan-hwei and Kiang-su) the average is 705 and 850 respectively.

³ The greater part of the trade of China is with the British Islands and colonies. The total imports amount on an average to £20,000,000, of which about £4,500,000 were from the United Kingdom, while of the total exports (average value £20,000,000), no less than £12,000,000 were sent to this country. By far the largest items in the exports to Great Britain are *tea* and *raw silk*. Upwards of 145,500,000 lbs. of tea, valued at £9,100,000 (average 1875-79), are annually exported. The annual value of the raw silk exported is between £2,500,000 and £3,000,000.

Besides tea, the Chinese export silk and nankeen stuffs, porcelain, lacquered wares, ivory, and various ornamental articles. They import the cotton and woollen cloths of Britain, and the opium of British India, together with a great variety of articles from the islands of the East Indian Archipelago—as pepper, betel-nut, sandal-wood, ebony, ivory, mother-of-pearl, with edible birds' nests, and tripang (or sea-slug), the two latter being highly valued as articles of food.

Internal Communication.¹—There are 20,000 imperial *roads*, but most of the internal trade is carried on by means of the magnificent rivers, which are connected together by a network of *canals*. Of the latter the most important is the famous *Grand Canal*, which extends for seven hundred miles through the great plain, and has hitherto formed the main highway for the conveyance of rice and other articles to the capital. But recent changes in the course of the Hwang-ho (which has abandoned its former bed, and made for itself a new channel, into the Gulf of Pe-che-lee) have destroyed portions of the canal, and rendered it necessary to adopt a seaward route for the commercial intercourse between Peking and the provinces to the southward.

GOVERNMENT.—The government of China is a strict despotism, based throughout upon the assumption of parental authority. The emperor is the recognised vicegerent of heaven, and father of all his subjects; through all the gradations of society the same notion of parental authority is carefully preserved. The *mandarins* (as the various civil and military authorities of China are styled by Europeans) constitute nine different orders of rank, each in regular subordination to that immediately above it.

Finance.—According to the most authentic estimates the annual *Revenue* is about £25,000,000, and the *Expenditure*, mainly for the standing army, amounts to about £15,000,000 a year. The *Public Debt*, incurred since 1874, is nearly £2,500,000.

Army and Navy.—The military forces of China are divided into two great divisions, the Tartar and Chinese, and number upwards of 1,000,000 men. The navy consists of numerous war-junks, and eight ironclad gunboats constructed in England.

DIVISIONS and TOWNS.—China proper is divided into eighteen provinces:—

PROVINCES.	CAPITALS.	PROVINCES.	CAPITALS.
1. PECHLEE, . .	Pekin.	10. HOUPH, . .	Vouchang.
2. SHANTUNG, . .	Tainan.	11. HOONAN, . .	Changsha.
3. SHANSEE, . .	Taiyuen.	12. SHENSEE, . .	Singan.
4. HONAN, . .	Kaifung.	13. KIANSU, . .	Lanchow.
5. KIANGSU, . .	Nankin.	14. SCZECHUNEUN, .	Chingtoo.
6. NGANHWEI, . .	Nganking.	15. KWANTUNG, . .	Canton.
7. KIANGSEE, . .	Nan-chung.	16. KWANGSEE, . .	Nanchang.
8. CHE-KIANG, . .	Hangchow.	17. KWEICHOO, . .	Kweiyang.
9. FO-MEN, . .	Fuchow.	18. YUNAN, . .	Yunan.

Not included in the above list is the transmaral province of *Sheng-King* or Leaotong (capital, *Moukden*), added to China proper after the conquest of the country by the Manchu Tartars in 1644.

¹ The greater part of China forms a fertile, populous plain, and is specially well-adapted for the development of railways. The Chinese authorities, however, will not sanction the construction of railways, and in 1877 actually closed the short line made from Shanghai to Woosung (40 miles distant), only one-half of which had been opened for traffic.

The cities of China are generally of large size—many of them have each several hundred thousand inhabitants. The capital of the empire, **Pekin**, contains one and a half million of inhabitants. Among the most important, besides **Pekin**, are **Shanghai**, **Nankin**, and **Hankow**—all three situated within the valley of the **Yang-tsze**—**Hangchow**, **Ningpo**, **Fuchow**, and **Amoy**, on the coast to the south of the **Yang-tsze**—and **Canton**, above the mouth of the **Choo-kiang**, on the south coast.

Pekin (population, 1,500,000), the capital of the Chinese Empire, is in the north-east part of the country, near the river **Pei-ho**, and not far from the Great Wall; 50 miles below is the great port of **Tientsin** (population, 930,000). **Nankin** (population, 450,000), which ranks second in importance, is on the south bank of the **Yang-tsze**. The stream of the **Yang-tsze** is the great highway of the interior commerce of China, and a numerous population is found upon its banks.

Shanghai (population, 277,000), on the coast at the southern entrance to the great river, has since 1842 (when it was first opened to European commerce) become yearly more important as a commercial emporium, and is now a great centre of the tea trade.

Canton (population, 1,000,000), long the sole point of intercourse between the Chinese and the people of other lands, and the single emporium of the tea trade, is at the head of an extensive estuary into which the river called **Choo-kiang** falls. A group of islands lie off the entrance of this river; one of the group (the second in point of size) is **Hong-kong**, which belongs to Britain. On a tongue of land upon the western side of the estuary is **Macao**, which belongs to the Portuguese.

II. TIBET.

TIBET,¹ an inland country, is to the west of China, and is divided from India by the **Himalaya Mountains**. It consists of a vast plateau, upwards of 15,000 feet above the level of the sea, and consequently cold in respect of climate. Besides the *Himalaya Mountains*, on its southern border, the tableland of Tibet is crossed by stupendous mountain-chains—the *Karakorum* and the *Kuen-lun*—which extend through it in the direction of east and west. Numerous rivers originate in this elevated region, and descend thence to the surrounding plains. The *Yarrow* (*Sanpoo*), *Kara-oussou*, and *Upper Brahmaputra*² drain the southern valleys of Tibet. The north-eastern and eastern districts are watered by the *Upper Yang-tsze-kiang* (or *Kin-cha-kiang*) and its tributaries. The lake of *Rakas Tal*, lying at an elevation of 15,200 feet, gives origin to the *Sutlej*, and the main stream of the *Indus* originates in the high mountain-region of Western Tibet. The ring-like *Lake Palte* lies between the *Yarrow* and the *Himalayas* (north of *Bhotan*). The *Tengri-nor*, which receives the drainage of the interior, is upwards of 15,000 feet above the sea-level.

¹ The total area of Tibet is estimated at 650,000 square miles (or about eleven times that of England and Wales), and the population at 6,000,000, consisting for the most part of Mongolians.

² The *Yarrow* or *Sanpoo* is frequently regarded as the "Upper Brahmaputra," the one so named here is the most easterly of the three streams which unite their waters to form the Brahmaputra proper.

INDUSTRY.—The industry of Tibet is almost wholly pastoral. Vast herds of sheep, mountain goats, and buffaloes are reared, and supply the materials for extensive traffic. The fine hair of the Tibetan goat is woven into the shawls of Cashmere.

GOVERNMENT.—Though under the recognised sovereignty of China, the native institutions of Tibet appear to be little interfered with. The real sovereign of the country is the Grand Lama, or high-priest of the Buddhist religion, of which Tibet is the seat. The Chinese viceroy resides at the town of *L'assa* (population, 50,000), the capital of the country. *L'assa* contains the vast temple of the Grand Lama, which is annually visited by thousands of pilgrims from all parts of central Asia. A second Grand Lama (the *Tesho Lama*) resides at *Shigatze* (about 200 miles west of *L'assa*), the monasteries of which contain 3000 priests, scarcely half the number residing in the great monastery of *Debang*, near *L'assa*.

The regions known as **Ladakh** and **Little Tibet** are to the westward of Tibet proper. They embrace the elevated tract of country which adjoins the north-western declivities of the Himalaya, and are thinly inhabited by a people of pastoral habits. Ladakh is now under British protection.

III. MONGOLIA.

MONGOLIA comprehends a vast region of central Asia, stretching from Tibet and China to the borders of Siberia, and including the desert tract known as the *Gobi* or *Shamo*. It consists for the most part of a succession of moderately-elevated plains, which have a gradual descent towards the region surrounding the lake of *Lop* and the course of the river *Ergheu*. The great chain of the *Thian-shan*, or Celestial Mountains, stretches through central Asia in the direction of east and west, and forms a leading division in Chinese geography. The *Altai Mountains* divide Mongolia from Siberia on the north; and the *Kuen-lun*, or *Tsung-Ling*, from Tibet on the south.

Mongolia¹ is wholly a pastoral region. The bulk of its population are nomads,² whose wealth consists in their flocks and herds, and whose habits are those which uniformly belong to such a mode of life. The entire belt of central Asia, from the banks of the *Amour* to those of the *Volga*, is termed by its wandering inhabitants the "Land of Grass;" and vast tracts of pasture-ground, alternating at intervals with mountains, rivers, and lakes, constitute its characteristic feature. In such a region the aspect of social life remains almost unchanged from generation to generation. The Mongol of the present day is a shepherd and (when occasion requires) a warrior, as his ancestors were in the days of *Timour* and *Genghiz Khan*.

The few towns are found upon the frequented routes of commerce. Amongst them are *Ulai-sutai* and *Kobdo*, both within the north-westerly portion of the territory. *Kobdo* lies within the considerable valley of the *Jabkan* river. *Urga*, the principal seat of the lamas, is simply a "camp" on the banks of the *Toula*, an affluent of the *Selenga*, which flows north into *Lake Baikal*.

¹ The area of Mongolia is estimated at 1,288,000 square miles (or about 22 times that of England and Wales), and the population at 2,000,000, an average of only 1.5 persons per square mile.

² The inhabitants of Mongolia belong to

three great sections—the *Kalkas* in the north, and the *Sunrites* in the south-east, both of which are of the pure Mongol race; and the mixed Mongol and Chinese tribes between the southern borders of the *Gobi* and the Great Wall of China.

IV. MANCHOORIA.

MANCHOORIA is an extensive¹ but little-known tract of country lying east of Mongolia, and limited on the northward by the course of the river Amour, the lower portion of which is now within the Russian dominions.² The country is politically divided into (1.) the province of *Tsitsikar* in the north-west, a triangular tract bounded by the Khin-ghan range, the Amour, and the Sungari; (2.) the province of *Kirin-oola* in the south-east, embracing the long strip between the lower Sungari on the north and the Shan-alin range and river Oosoori (or Usuri) on the east; (3.) the southern province of *Leaotong* or Shên-king.³ The first two provinces are within the basin of the Sungari, the great river of Manchooria; the latter comprises the lower part of the basin of the Leao-ho river.

Both Manchooria and Mongolia were formerly included under the general appellation of Chinese Tartary. The southern province, Leaotong, is inhabited principally by Chinese, and is now regarded as an integral part of China proper. Its chief city, *Moukden*, or Shinyang (population, 170,000), lies a hundred miles inland from the Gulf of Leaotong. The chief town of the northern province is *Tsitsikar*, which lies on the bank of the Nonni, an affluent of the Sungari. The capital of the south-eastern province is *Kirin* on the upper Sungari.

V. COREA.

COREA is a peninsula which stretches southward from Manchooria between the Yellow Sea and the Japan Sea. Its inhabitants are exceedingly jealous of intercourse with strangers, and the interior is unknown to Europeans.

The physical characteristics of Corea are similar to those of Italy. The long range forming the backbone of the Korean peninsula, prolonged on the north into the lofty snow-clad range of the Shan-alin, is almost the counterpart of the Apennines and the Alps of Italy. There is this difference, however, that the Korean chain runs along the east coast and is continued due north to the great range on the north, whereas the Apennines bend to the west before uniting with the Alps. The east coast of Corea is high and rugged: the level tracts along the Yellow Sea are skirted with numerous islands, of which the largest is *Quelpart*. Since the formation of the kingdom in 1392, the power of the Chinese government over the country has declined, and at present it is virtually independent. The form of government is an absolute monarchy, and the administration is based on that of China.

The capital is *King-ki-tao*, in the interior of the peninsula, on the river *Ya-lu*.⁴ All external trade is confined to China and Japan,⁵ but it is probable that before long the government will be forced to open the country to foreign trade.

¹ Estimated area 362,000 square miles (about six times that of England and Wales); population 3,000,000, consisting principally of Manchoes in the north and centre, and Chinese in the south.

² The *Shan-alin* (Long White Mountain) and the *Oosoori* (or *Usuri*) form the boundary between Manchooria and the Russian coast-territory on the east.

³ Between this province and the adjoining

division of *Kirin-oola* is the "palisade of stakes," a continuation of the Great Wall of China.

⁴ The Japanese colony is at *Fushan*, at the mouth of the *Tsin-kiang* on the south-east coast.

⁵ Estimated area, 90,000 square miles, nearly one-half that of England and Wales. Total population 9,000,000, an average of 100 to the square mile.

QUESTIONS ON THE CHINESE EMPIRE.

1. Name the countries that are included within the Chinese Empire.
2. How is China bounded? What is its extent?
3. Name the principal inlets and straits.
4. What two large islands lie off the coast of China?
5. Where is Hong-kong? What kind of island is it as to natural features? To what nation does it belong?
6. What is the general aspect of China as to natural features?
7. Describe the four chief rivers of China.
8. By what characteristics is the climate of China distinguished?
9. Among the natural productions of China, which ranks first in importance? State what you know concerning it.
10. Mention some other of the natural productions of China, vegetable and mineral.
11. To what number is the population of China supposed to amount? Is this number, relatively to the area of the two countries, greater or less than the ratio of population in England? What is the prevailing religion?
12. Give some particulars respecting the industrial pursuits of the Chinese people.
13. What constitutes the chief item in the foreign trade of China? What other articles do the Chinese export?
14. What articles do the Chinese derive from the East Indian Archipelago?
15. What are the means of internal communication?
16. What form of government prevails in China?
17. Why do the Chinese call their country *Shih-pa-shêng*?
18. Name the principal cities of China. Point out their places upon the map.
19. Upon what river is Nankin? What other places are within the valley of the same stream?
20. Where is Shanghai? What branch of trade is carried on there? To what city was this trade, until a recent period, restricted?
21. What kind of country is Tibet as to its physical features?
22. Of what religion is Tibet the seat? How is the head (or high priest) of this religion styled?
23. Name the chief city of Tibet, and find out its place upon the map.
24. What are the features of Mongolia? What desert does it include?
25. By what habits of life are the Mongols distinguished?
26. Where is Manchooria? What river forms its northerly limit?
27. Where is Corea? Describe its chief physical features. By what are its inhabitants distinguished?

TURKESTAN.

TURKESTAN is an extensive region of central Asia, reaching from the western limits of Mongolia to the shores of the Caspian Sea.

The total area of this vast region is probably not far short of a million and a half square miles, or about twenty-five times that of England and Wales.

NATURAL FEATURES.—This region includes extensive plains, inclining on the east towards the basin of *Lake Lop*, in central Asia, and on the west towards the Aral and the Caspian. Between their respective slopes, however, there intervenes the high region of the *Pamir Steppe*, with a mean altitude of 15,000 feet, surrounded by snowy peaks and glaciers of vast proportions.

Rivers.—The principal are, in Eastern Turkestan, the *Tarim* (or *Ergheü*), which loses its waters in the basin of *Lake Lop*; in Western Turkestan the *Amu* and the *Syr* (ancient *Oxus* and *Jaxartes*), both of which terminate in the salt Lake of Aral. A deserted bed of the *Amu* may be traced across the desert which intervenes between its present channel and the eastern shore of the Caspian, through which a portion of its waters formerly flowed.

CLIMATE.—The climate of Turkestan is one of great extremes. In the open and desert plains which stretch to the south and east of the Aral, the winters are excessively severe.

PRODUCTIONS.—Within the mountain-region many of the valleys are well watered and yield abundant harvests of grain and fruit. But great part of the country is desert.

INHABITANTS.—Most parts of Turkestan are thinly peopled, but the entire region is supposed to have from six to eight millions of inhabitants. They are of mixed origin and appearance; the majority appear to be of Tartar or Mongol race—members of the great family of nations that compose the bulk of the population of central Asia.

INDUSTRY.—Turkestan is largely peopled by nomadic tribes, whose habits are warlike, but the larger proportion of the population occupy fixed places of abode and cultivate the soil. *Silk* is an article of extensive produce upon the banks of the Oxus, the mulberry being abundantly reared for the purpose. Large numbers of *sheep* and *goats* are reared, and *camels* are numerous.

Commerce.—The commerce is almost entirely a transit trade, the caravans between Russia on the one side, and Persia, India, and China on the opposite frontiers, passing through this territory. *Cotton, corn, wool, and skins* are among the exports of Turkestan.

DIVISIONS.—This vast region is broadly divided into Eastern Turkestan and Western Turkestan.

I. EASTERN TURKESTAN.

EASTERN TURKESTAN now forms a province of the Chinese Empire. From 1864 to 1877 it formed an independent state under the Emir of Kashgar.

This territory, which was formerly known as *Chinese Tartary*, forms the most westerly portion of the Chinese Empire, and was first conquered in 1758. In 1864, however, the Chinese troops were expelled by the Tunganis or Mohammedans of Kansu, aided by the Usbegs of Western Turkestan; and in 1864 the able leader of the latter, Yakub Beg, formed the province into an independent state. But after his death, in June 1877, the Chinese troops advanced, almost unchecked, and reoccupied the country.

TOWNS.—Eastern Turkestan is frequently called *Jetyshahr*, from its seven cities—Khoten, Yarkand, Yeng-hissar, Kashgar, Ush Turfan, Aksu, Kuné Turfan, of which the principal are *Kashgar* (population, 170,000), *Yarkand* (population, 100,000), and *Khotan*; all of which are situated on the banks of affluents of the Ergheu river. Kashgar, the capital, is the most populous, but Yarkand is, commercially, the most important. Communication with India is chiefly carried on by the *Karakorum Pass*, and with Western Turkestan by the *Terek Pass* and across the Pamir.

II. WESTERN TURKESTAN.

WESTERN TURKESTAN includes Russian Turkestan, the independent Khanates of Khiva and Bokhara, and the Turkoman territory between the Amu and Persia.

1. **RUSSIAN TURKESTAN** includes the territories south of the Kirghiz Steppe, acquired by Russia within recent years. These form a part of, and are therefore described under, Russian Central Asia.

2. **KHIVA** has been greatly curtailed in the course of the wars with Russia, and the Khanate is virtually a mere dependency of that power. The district still nominally independent extends along the left bank of the Amu, and is limited on the west by the Russian Trans-Caspian territory. Its total area is about 20,000 square miles, and its population 700,000, consisting mainly of Uzbeks and Turkomans. The capital, **Khiva**, lies in the valley of the Amu.

3. **BOKHARA** includes a long strip of territory along the right bank of the Amu, and has an area of about 80,000 square miles, with a population of about 2,000,000. The power of the Khan is despotic, and is only controlled by the authority of the Koran—the Mohammedan ritual of faith, which the people uniformly profess. The capital, **Bokhara** (population, 70,000), lies within the fertile valley of the Zerafshan.

4. The remaining portion of Turkestan, extending from the Amu to the borders of Persia and the Trans-Caspian provinces, has an area of about 80,000 square miles, and consists for the most part of a sandy desert, on the borders of which dwell several warlike Turkoman tribes. The recent Russian expedition against the most powerful of these tribes, the Tekhes, resulted in the capture of their stronghold (**Geok Tepe**) and formal submission (April 1881) of their principal leaders to the Russian authorities at Askabad. The Russian government is now (June 1881) engaged in arranging a treaty with the Merv deputies, by which Merv and district will virtually become a Russian province.

ASIATIC RUSSIA.

ASIATIC RUSSIA comprises three great divisions—the Caucasus, Siberia, and Central Asia.

I. THE CAUCASUS.

This administrative division¹ of the Russian Empire embraces the territory lying between the Black and Caspian Seas, and is divided into *Cis-Caucasia*, north, and *Trans-Caucasia*, south, of the great chain of Mount Caucasus.²

BOUNDARIES.—This region is bounded on the north by European Russia, on the east by the Caspian Sea, on the south by Persia and Asiatic Turkey, and on the west by the Black Sea.

EXTENT.—The entire region comprehends an area of about 170,000 square miles, or nearly three times that of England and Wales.

MOUNTAINS.—The greater part of the Caucasus is mountainous. The chain of the *Caucasus* rises above the snow-line, and its higher portions exceed 10,000 feet above the sea. *Elburz*, which is the highest point of the chain, reaches upwards of 18,000 feet, which is a greater height than that of Mont Blanc. The only road practicable for carriages across the Caucasus attains, at the summit of the *Dariel Pass*, an elevation of 8000 feet.

The country lying farther south, towards the Persian border, includes part of the *Plateau of Armenia*. *Mount Ararat*, upwards of 17,000 feet high,³ is within its limits, near the border-line of Persia and Turkey.

¹ Officially styled "The Lieutenancy of the Caucasus."

² If we take the Caucasus range as being the boundary between Europe and Asia, then *Cis-Caucasia* is within the limits of

Europe, while *Trans-Caucasia* is in Asia. But these two divisions are physically and politically so intimately connected that it is better to consider them as one country.

³ About 3000 feet above the snow-line.

RIVERS.—Cis-Caucasia is watered chiefly by the *Kouban* and *Terek*, and their tributaries. The Kouban flows west into the Black Sea, but the Terek has an eastwardly course into the Caspian. The *Kour* (ancient Cyrus) and its tributary the *Aras* (ancient Araxes) are the chief rivers of Trans-Caucasia. They both flow, by the single stream of the Kour, into the Caspian Sea. The large lake of *Goukcha* or *Sevan*, which is within Russian Armenia, is connected with the stream of the Aras.

CLIMATE.—The climate, though temperate on the average, is yet one of great extremes. In the plains towards the Caspian the heats of summer are excessive, while the winter is one of prolonged and extreme severity. This is especially the case in the open plains of the Armenian plateau.

PRODUCTIONS.—The productions of the soil constitute the chief wealth of this territory. There are extensive forests, in which wild animals (among them the *boar* and the *antelope*) abound; and the watered valleys yield plentiful crops of *grain*, besides *fruits*. Both the *vine* and the *mulberry* flourish, and the *cotton-plant* thrives.

INHABITANTS.—The total population of the Caucasus is officially estimated at 4,893,000. They comprise people of various races and creeds, but the majority are Georgians and other people of what is called the Circassian stock.

The inhabitants of the Caucasus have been famed, in all ages, for their personal beauty, and they still preserve this reputation. The Georgian and Circassian girls, sold as slaves in the markets of Constantinople, were derived from this region. This traffic has been in great measure checked within recent years owing to the interference of Russian authority.

INDUSTRY.—There is scarcely any regular industry. The mountain tribes have been almost continually engaged in warfare with Russia since they came under the nominal subjection of that power at the beginning of the present century. *Agriculture* is pursued to a limited extent.

DIVISIONS and TOWNS.—Cis-Caucasia is politically divided into the three governments of Kouban, Stavropol, and Ter. Trans-Caucasia is divided into nine governments—Baku, Daghestan, Elizabetopol, Erivan, Kutais, Sukhum, Tchernomore, Tiflis, and Sakhatoli.

The various parts of the region of the Caucasus, however, are better known to Europeans by the old names—Circassia, Georgia, Mingrelia, &c.

The chief town north of the Caucasus is **Stavropol**, on the old route between Russia and Trans-Caucasia. **Tiflis** (population, 80,000), the capital of the whole territory, is on the river Kour, at the southward termination of the great road which crosses the Caucasus, and is connected by rail with **Potl**, the chief port of Trans-Caucasia, on the Black Sea. In Asia, the chief events of the Russo-Turkish war were the capture of **Kars**,¹ **Ardahan**, and **Batoum**,² and the occupation of the surrounding territory,³ which was finally ceded to Russia by the Treaty of Berlin. Another town of some importance is **Erivan**⁴ (population, 11,000), situated within Russian Armenia, not far from the foot of Mount Ararat.

¹ Kars has been besieged and taken by the Russians three times, in 1825, 1855, and 1877.

² Batoum has been made a free port.

³ The additional territory acquired under the Treaty of Berlin, provisionally formed

into the government of Kars, has upwards of 600,000 inhabitants, two-thirds of whom are Mohammedans.

⁴ North-west of Erivan is the strong fortress of Alexandropol.

II. SIBERIA.

SIBERIA includes all the northern belt of the Asiatic continent, comprising the vast plain which slopes from the Altai Mountains to the Arctic Ocean.

BOUNDARIES.—Siberia is bounded on the *north* by the Arctic Ocean, on the *east* by the Pacific,¹ on the *south* by the Chinese Empire and Central Asia, and on the *west* by Russia in Europe.

EXTENT.—The area of Siberia is officially estimated at 4,826,000 square miles, *i.e.*, about eighty-four times the size of England and Wales.

The *greatest length* of Siberia, from Behring Strait to the Uralian Mountains, is 3600 miles; and the *greatest breadth*, from north to south, 1800 miles.

COASTS.—The *northern* coasts of Siberia, though generally low, are deeply indented by several gulfs or rather estuaries, but their navigation is closed during the greater part of the year.² The *eastern* coasts are washed by three land-locked seas, Behring Sea, Sea of Okhotsk, and the Sea of Japan,³ all opening into the Pacific.

1. **CAVES.**—North-East Cape or Cape Chelyuskin, the northernmost point of the Old World; East Cape, the most easterly point of Asia; Cape Lopatka, the extreme south point of the peninsula of Kamchatka.

2. **INLETS.**—Gulfs of Obi and Yenesei, Taimyr Bay, Khatanga Bay; Gulf of Anadir, with Kresta Bay; Sea of Okhotsk, with Gulfs of Penjinsk and Ghijinsk; Sea of Japan, with the Gulf of Tartary.

Behring Strait, which divides Asia from North America, is only about 60 miles wide.

ISLANDS.—*Liakhov Islands* or New Siberia, off the north coast of Siberia, famous for their fossil ivory; *Bear Islands*, off the mouth of the Kolyma; *St. Lawrence* and *Behring Islands*, in Behring Sea; the *Aleutian Islands*; and the *Kurile Islands*, given to Japan in 1875 in exchange for the Japanese portion of the island of *Saghalien*.⁴

NATURAL FEATURES.—Siberia is a vast lowland plain. The Altai Mountains form its southern border, and impart diversity of surface to the country which adjoins their base. Great level plains, or *steppes*, stretch out thence to the northward, and become more barren and desolate as they approach the shores of the Polar Sea. Towards the latter they form a level waste⁵ of ice and snow during the larger portion of the year, converted into a series of swamps and marshy lakes during the brief summer of these high latitudes.

¹ Strictly speaking, with the exception of the south-eastern coasts of the peninsula of Kamchatka, no part of Siberia borders directly on the Pacific Ocean. On referring to the map, the student will find that the eastern coasts are washed by Behring Sea, Sea of Okhotsk, and the Sea of Japan.

² The recent accomplishment of the *North-East Passage* by Nordenfjöld in 1878-79, in the "*Vega*," will probably result in a limited maritime intercourse during the summer months between Siberia and Europe.

³ These seas are separated from the ocean by chains of islands: Behring Sea or Sea of

Kamchatka by the Aleutian Islands; the Sea of Okhotsk by the Kurile Islands; and the Sea of Japan by the Japan Islands. But they are not true inland seas, like the Mediterranean or the Baltic. They are "generally shallow, but contrary to the general law of depth, the coasts are on the whole lofty, except at the mouths of the larger rivers."

⁴ Saghalien is divided from the mainland by the Gulf of Tartary. It possesses good coal, which is worked by convicts.

⁵ The "Tundras."

The easterly division of Siberia is less generally level than its westerly portion. A high chain of mountains, several among which are active volcanoes, extends through the peninsula of Kamchatka. The long range of the *Yablonoi* or *Stanovoi Mountains* forms the natural boundary between the coast territory and the Amour province, and the government of Yakutsk. The central provinces of Siberia are divided from Mongolia by the *Altai Mountains*.

RIVERS and LAKES.—The three great rivers of northern Asia, *Obi*, *Yenesei*, and *Lena*, belong to Siberia. The rivers *Irtish*, *Tobol*, and *Ishim* are the chief tributaries of the *Obi*. The chief tributary of the *Yenesei* is the river *Angara*, which flows out of Lake Baikal,¹ the largest freshwater lake of Asia.

Each of the three great rivers of Siberia has a course of between two and three thousand miles before its waters reach the ocean, but the high latitudes through which they flow prevent their being much navigated, excepting in their upper portions. Many of their tributaries, however, which run in a direction transverse to that of the main streams (or east and west), are extensively used as channels of intercourse.

CLIMATE.—The climate of Siberia is cold. It is only in the south that a moderate temperature is experienced. The extreme north, towards the shores of the Arctic Sea, exceeds any other region on the globe in the intense severity of its winter, which is prolonged through nearly ten months of the year.

PRODUCTIONS.—Siberia, however, has natural productions of great value. These are of two kinds, belonging to distinct divisions of the natural world—metals and furs.

1. The former occur in the neighbourhood of the Ural and the Altai Mountains, in both of which localities *gold* is worked to a considerable extent. Mines of silver and lead are also worked in the Altai region, to the east of Lake Baikal. *Iron*, *copper*, and many other metallic and mineral productions, as well as valuable masses of *porphyry* and other *marbles*, are also supplied by Siberia. *Malachite* (which is a carbonate of copper) is extensively derived thence.

2. The other source of wealth is found in the variety and abundance of animals furnished by nature with warm coats of fur, to enable them to withstand the cold of a Siberian climate. Among these are the *sable*, *otter*, *mink*, *ermine*, *fox*, and many others; but their numbers have materially diminished under the pursuit of the Russian hunters.

INHABITANTS.—Siberia contains about three and a half millions of inhabitants, of whom a large proportion are exiles from European Russia. The rest are *Kirghiz*, in the south-west; *Kalmucks* and other tribes along the borders of the Altai Mountains; the *Tunguses*, east of the *Yenesei*; *Ostiaks* and other Tartar-Finnish tribes in the west and north-west; and the *Samoyedes*, along the shores of the Arctic Ocean.

The native tribes of Siberia are for the most part idolaters. Those dwelling in the eastern parts of the country exhibit a low and barbarous condition of life, and are almost independent of Russian control. The people of Kamchatka are of short stature; they have few settled habitations, and are remarkable for the extent to which they use the dog for the purpose of draught, as we do the horse.

¹ Lake Baikal is nearly 400 miles in length, and has an area of about 13,000 square miles. | In winter it is frozen over, but in summer it is regularly navigated by numerous steamers.

INDUSTRY.—By far the larger portion of Siberia is too cold and dreary to be fitted for permanent habitation, but there are fertile and cultivated tracts in the south, towards the mountain-region of the Altai and the shores of Lake Baikal. The native tribes of Siberia are chiefly hunters and fishers; the Russians use this country as a place of exile, and the unhappy prisoners transported thither are condemned to work in the mines.

Commerce.—An extensive commerce is maintained between Russia and China, through the medium of Siberia. Tea and other productions of China are thus brought, by a long land-journey (with the frequent aid of river navigation), into the north of Europe. The Russian and Chinese traders meet at Kiakhta, to the south of Lake Baikal, on the line of frontier between the two empires.¹

DIVISIONS and TOWNS.—Siberia is divided into eight governments. These, with the chief towns in each, are shown in the following table :—

Governments.	Chief Towns,	Governments.	Chief Towns.
TOBOLSK, . . .	Tobolsk.	YAKUTSK, . . .	Yakutsk.
TOMSK, . . .	Tomsk.	COAST TERRITORY,	Nikolaevsk.
YENISEISK, . . .	Yeniseisk.	AMOUR TERRITORY,	Chacarowka.
IRKUTSK, . . .	Irkutsk.	TRANS-BAIKAL, .	Nertchinsk. }

Irkutsk (*population*, 23,000), the capital of eastern Siberia, is the largest and most important city in the whole region. It stands on the river Angara, a short distance below its issue from Lake Baikal. The fortified town of **Petropavlovski**² is on the east coast of Kamchatka. **Tobolsk** (*population*, 15,000), the largest city of western Siberia, is at the junction of the river Tobol with the Irtysh, the chief tributary of the Obi. **Omsk** (*population*, 11,000) is situated at the point where the river Om joins the Irtysh. **Tomsk** is the centre of the trade of Siberia.

III. RUSSIAN CENTRAL ASIA.

This division of Asiatic Russia is bounded on the *north* by the governments of Tomsk, Tobolsk, and Orenburg, and by the khanates of Khiva and Bokhara on the *south*, and extends from the river Ural and the shores of the Caspian Sea on the *west* to the Altai and other lofty ranges which divide the Russian territories from Mongolia and Chinese Turkestan.

EXTENT.—The *area* of Russian Central Asia is estimated at 1,150,000 square miles, or nearly twenty times that of England and Wales.

SURFACE.—The principal features are (1) the stony *Kirghiz Steppe* in the north; (2) the mountainous districts bordering on the Altai and Thian-Shan Mountains between the head-waters of the Irtysh and the Syr-Daria on the west; (3) the deserts of the *Karakum* north, and the *Kizil-kum*, east, of the Sea of Aral; and (4) the sterile plateau of *Ust-Urt*, between the Sea of Aral and the Caspian.

¹ The great route (7300 miles long) between Russia and China leads from Moscow by way of Kazan, Tomsk, and Irkutsk to Kiakhta.

Opposite Kiakhta is the Chinese town of Maimatelim.

² i.e., Harbour of St. Peter and St. Paul.

Rivers.—The northern portion of this region is watered by the *Irtish*, *Ishim*, and other tributaries of the Obi; the eastern districts by the *Irty*, *Lepsa*, and other rivers which enter Lake Balkash; and the southern by the *Amu* and *Syr* (Oxus and Jaxartes), both of which enter the Sea of Aral.

Lakes.—The *Sea of Aral* is about 350 miles in length, and has an area of 35,000 square miles. It is shallow, especially on the east and south, and its navigation is still further impeded by numerous islands. *Lake Balkash* is an irregular sheet of water, and, although it receives many large rivers, its waters are intensely salt.

CLIMATE.—The climate, especially in the north, is strictly continental, being extremely hot in summer and intensely cold in winter.

Productions.—The immense herds of cattle reared on the steppes constitute the chief wealth of the nomadic Kirghiz tribes. Some of the valleys in the south-east are well watered and fertile, but the Sea of Aral on the west is surrounded by sterile deserts—the Kara-kum and Kizil-kum on the north and east, and the desert-plateau of Ust-Urt on the west.

INHABITANTS.—Central Asia is officially estimated to contain about 3,500,000 inhabitants, an average of only three persons per square mile.

Industry.—The Kirghiz are pastoral and nomadic, roaming with their herds over the steppes. In Russian Turkestan the people of the valleys and along the banks of the rivers are for the most part engaged in agriculture or trade.

DIVISIONS and TOWNS.—The Russian dominions in Central Asia are divided into nine governments and one district—*Uralsk*, *Turgai*, *Akmolinsk*, and *Semipalatinsk* in the north, and *Semiretchensk*, *Fergana*, *Zerafshan*, *Syr-Daria*, *Amu-Daria*, and the *Trans-Caspian District* in the south.

Each of the four governments in the north is named after its chief town. In the southern provinces (which form the general government of Turkestan) the chief towns are:—*Kokan* (population, 75,000), the capital of the formerly independent khanate of Kokan.¹ Kokan lies in the fertile valley of the Syr, but its trade, though considerable, is much less than that of *Tashkend*² (population, 80,000), the principal town in Russian Turkestan. South of Tashkend is the important commercial town of *Khojend*, on the great route to Bokhara. *Samarkand*,³ in the valley of the Zerafshan, contains the tomb of Tamerlane, and once formed the capital of his vast empire.

QUESTIONS ON TURKESTAN AND ASIATIC RUSSIA.

1. To what part of Asia is the name of Turkestan given?
2. How is Turkestan bounded?
3. Describe the natural features of Turkestan.
4. Name the principal rivers of this region, and trace their courses on the map.
5. By what is the climate of Turkestan distinguished? Which parts of the country are most productive?
6. State what you know of the people of Turkestan.
7. How is Turkestan divided?
8. Describe briefly the principal independent states of Turkestan.
9. Asiatic Russia embraces three distinct territories: give their names and point to each upon the map.
10. What kind of country is the Caucasus as to natural features? What

¹ The khanate of Kokan was incorporated in the general government of Turkestan in 1875.

² Tashkend was taken by the Russians in

1865, but was recaptured in the same year by the Khan of Bokhara. It was again attacked by the Russians and taken, 1866.

³ Captured by the Russians in 1868.

famous mountain is within the limits of Russian Armenia?

11. Name the principal rivers of this region.

12. What lake lies within Trans-Caucasia?

13. Describe the climate and productions of the Caucasus.

14. To what race of people do the majority of the people belong? By what circumstance have they been in all ages distinguished?

15. What is the chief city of the Caucasus, and on what river does this stand?

16. Where is Kars, Batoum, Stavropol, and Erivan?

17. How is Siberia bounded? What range of mountains divides it from Russia in Europe? What from the Chinese Empire?

18. What gulfs are on the north coasts of Siberia? What seas and inlets on its eastern side?

19. What strait adjoins the eastern extremity of Siberia? What two continents does this strait divide?

20. Name the principal islands along the coasts, and briefly describe the natural features, of Siberia.

21. Name the three great rivers of Siberia.

22. What kind of climate has Siberia?

23. What natural productions of value belong to Siberia?

24. For what purpose is Siberia used by the Russian government? What are the chief pursuits of the native tribes?

25. At what place, on the Siberian and Chinese frontier-line, is commercial intercourse maintained between the Russians and the Chinese? What article do the Russian traders obtain from China?

26. Name the eight governments into which Siberia is divided. What is the chief town of each?

27. On what rivers are Tobolsk, Omak, and Irkutsk?

28. Where is Petropavlovski? Point out its place on the map.

29. What are the boundaries of Russian Central Asia?

30. Briefly describe the chief natural features, climate, and productions of this region.

31. What are the political divisions?

32. State what you know of Kokan, Tashkend, Khojend, and Samarkand.

MALAY ARCHIPELAGO.

The MALAY OR EAST INDIAN ARCHIPELAGO is an insular region of vast extent to the south-eastward of the Asiatic continent. It is within the Torrid Zone, and is crossed by the line of the equator.

Of the islands included within this region the largest is *Borneo*, the second in size is *Sumatra*, the third in this respect is *Celebes*, and the fourth is *Java*; next in order of magnitude are the *Philippine Islands* and *Molucca Islands*.

BOUNDARIES.—The Pacific Ocean, the China Sea, and the Indian Ocean enclose the region of the East Indian Archipelago.

The various islands which it embraces are divided by numberless lesser seas and channels, among which are the following:—*Java Sea*, *Celebes Sea*, *Banda Sea*, *Flores Sea*, and *Mindoro* (or *Sulu*) *Sea*.

STRAITS.—The principal are *Macassar Strait*, *Strait of Malacca*, and *Strait of Sunda*. The Straits of *Malacca* and *Sunda* form the two great channels of entrance to this region from the westward. The *Strait of Malacca* divides the island of *Sumatra* and the *Malay peninsula*; the *Strait of Sunda* intervenes between the islands of *Sumatra* and *Java*.

Nearly all ships that proceed from the ports of Europe to the coasts of China, or to any of the islands of the archipelago, pass through one or other of these channels. English vessels—whether direct from England or from the ports of India—nearly always use the *Strait of Malacca*, along the shores of which are situated the British settlements of *Penang*, *Malacca*, and *Singapore*. Dutch vessels, on the other hand, adopt the *Strait of Sunda*, which adjoins the possessions of Holland in this part of the globe.

CLIMATE.—The climate of the East Indian Archipelago is hot, but the generally intense heat of the Torrid Zone is here moderated by the influence of the surrounding seas. The temperature is hence not so high as upon many parts of the Asiatic mainland. The air is mostly healthy, excepting in low and marshy districts. The rains fall copiously at particular seasons, which are dependent upon the change of the monsoon.

PRODUCTIONS.—The natural productions of this region are rich in the extreme. *Gold* and *precious stones* in the mineral department of nature, with rich *fruits* and *spices* in the vegetable world, distinguish these fertile and beautiful islands of the Eastern seas. Both gold and diamonds are among the productions of Borneo. But the grains, aromatic plants, and valuable wood, with many curious vegetable productions of the different islands, are of more real value to man.

The tree which yields *gutta-percha* is a native of Borneo and some other of the islands. The *nutmeg* and the *clove* belong to the smaller islands of the Molucca group (or the Spice Islands, as they were, from this circumstance, formerly called). *Sago* is the produce of the islands in the more easterly division of the archipelago.

INHABITANTS.—The entire population of the Malay Archipelago is probably upwards of 30,000,000. The island of Java alone has nearly 16,000,000 inhabitants, and the Philippine Islands contain upwards of 7,000,000.

The native races throughout the archipelago are in a state of semi-barbarism. The Malays are the ruling people, excepting in those islands where European supremacy is established; in most of the islands there are various black races, some of whom exhibit a very low condition of savage life. The Malays are skilful navigators and active traders. Piracy upon a scale of great extent was also formerly carried on, when their long war-canoes were the terror of the archipelago. A vast number of Chinese are found settled in various parts of this region.

Commerce.—The East Indian Archipelago is the theatre of an active commerce. The English, Dutch, Americans, and the Chinese are most extensively engaged in this trade. *Spices*, *gutta-percha*, *coffee*, *indigo*, *sugar*, *cigars*, and *tortoise-shell* are among the productions exported hence to Europe and America.

Edible birds' nests and the substance called *tripang* are among the articles in demand among the Chinese. The former of these are the nests of a species of swallow, the material composing which is cemented by a viscous kind of substance—the produce of the bird itself; the latter (called also *biche de mer* or sea-slug) is a gelatinous mass of living matter, belonging to the order of radiated animals, and found adhering to the rocks in certain parts of the Indian Archipelago. Both are articles of luxury to the Chinese epicure.

POLITICAL DIVISIONS.—The Dutch, the Spaniards, and the English exercise sovereignty over a large portion of the East Indian Archipelago.

1. The Dutch are the masters of *Java*, of parts of *Sumatra*, *Borneo*, and *Celebes*, and of the smaller islands of the *Molucca* group.
2. The Spaniards possess the *Philippine Islands*.

3. The English claim only the little island of *Labuan*, off the north-west coast of Borneo; but the settlement of *Singapore*, at the entrance of the archipelago by the Strait of Malacca, is a great emporium of the commerce of this insular region.

BORNEO is 270,000 square miles in area, or more than three times the size of Great Britain. Its interior has never been explored by Europeans, but the districts lying near the coast are fertile and productive in the extreme. High mountains, navigable rivers, and dense forests are among its natural features.

The western and southern shores of Borneo, with part of the east side of the island, are subject to the Dutch, who export the produce of the gold and diamond mines worked in the neighbourhood of the western coasts. The province of *Sarawak*, on the north coast, is an independent principality, under the rule of a British subject.¹ The larger portion of the island, however, is divided among various native states, one of which includes the town and territory of *Borneo*, or *Brunei*, upon the north side of the island. Off the mouth of a navigable river which leads to the town of *Brunei* is the small island of *Labuan*, which belongs to Britain. *Labuan* contains good coal, which is worked by the settlers on the island.

SUMATRA has an area of nearly 150,000 square miles, which is three times the size of England. A chain of high mountains runs along its western coast.

The greater part of the coast is under the rule of the Dutch, whose chief stations are *Padang* and *Bencoolen*, both upon the western side of the island. There are also numerous native states, one of the principal of which is *Acheen*, near its northern extremity.

JAVA is about 45,000 square miles in area, that is, not much less than the size of England. A chain of lofty volcanoes runs through the whole length of the island, from west to east.

Java belongs to the Dutch, and its chief city, *Batavia* (population, 250,000), is the capital of the Dutch possessions in the East Indies. The chain of smaller islands that stretch to the eastward of Java are also chiefly Dutch. The Portuguese, however, have a small settlement upon the north coast of Timor, the most eastwardly of the number.

CELEBES has an area of about 72,000 square miles, and forms one of the Dutch possessions.

The island is politically divided into three *residencies*, of which that of *Macassar* (the southern peninsula) is the most important. The town of *Macassar* is the centre of the trade of Celebes, which is carried on chiefly with Java and Singapore.

The **MOLUCCA ISLANDS** (area, 25,000 square miles), to the eastward of Celebes, are also Dutch. The most important among them² is the small island of *Amboyna*, which is the seat of extensive commerce.

¹ It is worthy of note that a second state under British rule has recently (1878) been founded in Borneo, the Sultans of Bruni and Sulu having ceded the territory of *Sabak*, in the extreme north of the island, to an English company. *Sabak* is described as a "mag-

nificent country, possessing the only good harbours in the whole of Borneo, with a salubrious climate, and forming, in a mineral and agricultural point of view, the richest portion of Borneo."

² The largest are *Gilolo* and *Ceram*.

The **PHILIPPINE ISLANDS**¹ (area, 100,000 square miles) form the most northerly portion of the archipelago, and constitute one of the most important possessions of the Spanish Crown. The largest island of the group is called *Luzon*, which is nearly equal to England and Wales in point of size. *Mindanao* is next in magnitude. The total *population* is estimated at 7,450,000.

All the islands of the Philippine group are mountainous; they also contain numerous rivers, and are throughout well-watered, fertile, and productive. Tobacco, sugar, and rice are largely grown and exported. The chief city is **Manilla**, situated on the western coast of *Luzon*. There are numerous English and American merchants settled at Manilla, which is the seat of extensive trade.

JAPAN.

JAPAN is an insular empire, situated to the eastward of the Asiatic continent and within the Pacific Ocean. It consists of an extensive group of islands, the largest of which is called *Nippon*. *Kiusiu* and *Sikokf*, to the south of *Nippon*, and *Jesso*, to the north of that island, are the other principal members of the Japan group.

The Kurile, Loo-Choo, and Bonin Islands also belong to Japan.

EXTENT.—The whole area of Japan is 160,474 square miles, nearly three times the size of England and Wales.

COASTS.—Of great extent, and indented with magnificent natural harbours, such as the *Bay of Yedo* and the *Gulf of Osaka*.

Of the various straits and channels the principal are:—*La Perouse Strait*, between *Jesso* and *Saghalien*; *Strait of Sangar*, between *Jesso* and *Nippon*; *Suwo Nada* and *Bugo Channel*, dividing *Kiusiu* from *Nippon* and *Sikokf*.

NATURAL FEATURES.—All the islands are mountainous; the principal ranges in each extend generally parallel to the eastern coasts. Several of the higher mountains are volcanoes. Fertile plains and valleys, watered by numerous rivers, extend between the mountains and the sea.

The general height of the Japanese mountains is from 3000 to 8000 feet, but the extinct volcano of *Fusi Yama*,² near *Yedo* (or *Tokio*), in the island of *Nippon*, attains an elevation of 14,177 feet. In the centre of the same island is the active volcano of *Asama Yama*. There are several other active volcanoes, and severe earthquakes are frequent.

CLIMATE.—The climate of Japan is temperate and healthy—perhaps not differing materially from that of Britain, excepting in its greater extremes of heat and cold at particular seasons.

PRODUCTIONS.—Among its productions are included, in the mineral kingdom of nature, *gold*, *silver*, *iron*, *copper*, and *tin*; and,

¹ The Philippine Islands were discovered (in 1521) by Magellan, who was killed by the natives on the island of *Cebu*.

² *Fusi Yama*, the "sacred mountain."

in the vegetable world, trees that yield valuable *gums* and *resins*, with the *tea-plant* and the *mulberry*. The last is extensively used as the food of the silkworm.

INHABITANTS.—The population of Japan, according to the last census,¹ amounts to upwards of 34,000,000, which is in the ratio of about 200 persons to the square mile. The country bears in general the appearance of populousness, and many of the cities are of large size.

INDUSTRY.—The Japanese are an ingenious and a civilised people—though their civilisation, like that of all Oriental races, differs in many respects from European civilisation. Their industry is displayed in the careful culture of the land, the good roads which connect the various towns and villages, their skilful manufacture of silk, cotton, and japanned wares, and the commercial intercourse which they maintain with China. Rice, cotton, tobacco, the tea-plant, and the mulberry are among the articles of most extensive culture. The art of covering metals with varnish (*japanning*) derives its popular appellation from this country. Their porcelain displays much skill, and possesses a beauty of its own peculiar kind.

It is only within the last few years that foreigners have been permitted to visit the ports of Japan. Prior to 1854 commercial intercourse was restricted to the Dutch, among European nations, and to their neighbours the Chinese. The Dutch were allowed to send a couple of ships annually to the port of Nagasaki, on the west coast of Kiusiu. But treaties of commerce now exist between Japan and the various governments of the United States, Britain, France, and other countries. The foreign trade of Japan (total value, £8,000,000) is mainly carried on with Great Britain and the United States. In 1879 the British produce (chiefly *cotton* and *woollen goods*) imported was valued at £2,638,000. The principal article of export is *raw silk*.

Internal Communication.—The internal trade of the country is mainly carried on by sea, but there are now about 200 miles of railway open for traffic. A postal and telegraph service has also been established within recent years.

GOVERNMENT.—The government of Japan is an absolute monarchy, under a ruler known as the *Mikado*. The laws are severe, and the punishments sanguinary.

Previous to the war of 1868, the supreme power was nominally divided between the *Mikado* or the spiritual ruler, and the *Tycoon* or temporal ruler. Many of the feudal princes (*Daimios*) were virtually independent, and maintained large bodies of troops. In that year, however, the hereditary emperor overthrew the power of the *Tycoon* and *Daimios*. The attempt to form a parliament in 1869 having failed, the legislative as well as the executive power reverted to the *Mikado*, but the actual government is carried on by the Great Council, the members of which are nominated by the emperor.

Finance.—The annual revenue² and expenditure each amounts to about £10,000,000. Of the public debt (about £72,500,000), about £2,500,000 was raised in England.

Army and Navy.—The imperial *army*, under the command of the *Mikado*, numbers about 80,000 men. The *navy* consists of about 12 vessels, most of which were built in England.

¹ December, 1878.

² The chief source of revenue is the land-

tax, which in 1877-78 was estimated to produce £9,300,000.

RELIGION.—The people are mostly followers of the *Buddhist* religion, but the ancient religion of the country was *Sintuism*, or sun-worship, and adoration of invisible spirits, which is still professed by many of the lower classes. The higher classes generally profess *Confucianism*.

DIVISIONS.—Japan is at present (1881) divided for administrative purposes into thirty-five "*Ken*" or provinces, each under a governor appointed by the Mikado.

TOWNS.—The capital of Japan is **Tokio**,¹ formerly called Jedo or Yedo, situated on the south-east coast of Nippon at the head of a fine bay. Tokoi has upwards of 1,000,000 inhabitants. **Yokohama** (Kanagawa), a town of recent growth, several miles nearer the sea, forms its port, and has become the chief emporium of the foreign trade. **Saiki**² (*population*, 375,000), on the same island farther to the west, is a large city, the former residence of the Dairi. **Hakodadi**, on the south, and **Matamai**, on the south-east coast of the island of Jesso, are considerable commercial towns.

The southern portion of the island of *Saghalien* formerly belonged to Japan, but in 1876 it was ceded to Russia in exchange for the Kurile Islands.

QUESTIONS ON THE MALAY ARCHIPELAGO AND JAPAN.

1. Where is the Malay Archipelago situated? Which of its islands is the largest? Which second and third in point of size?

2. Name some of the seas and channels that divide the various islands of this region.

3. What two straits form the principal channels of entrance to the archipelago from the side of the Indian Ocean?

4. What kind of climate has the Malay Archipelago?

5. Mention some of the natural productions of this part of the globe.

6. What race (among the native inhabitants) are the ruling people in the archipelago? What are their habits and occupation?

7. In what articles does the trade of the archipelago chiefly consist? What nations are the most active agents in this trade?

8. What portions of the East Indian Archipelago belong respectively to the Dutch, the Spaniards, and the English?

9. Point to the island of Borneo on the map. How large is this island as compared with Great Britain? What is known with respect to its natural features?

10. In what part of Borneo is the principality of Sarawak? Off what part of the coast is Labuan Island? Where is Sabak?

11. Point to Sumatra. In which part

of this island are the principal Dutch settlements? Mention their names.

12. Point to Java, and say what you know concerning its natural features. Name the chief city of this island.

13. Where is (a) the island of Celebes and (b) the group of the Moluccas? Which, among the smaller islands of the Molucca group, is most important as a seat of commerce?

14. Where are the Philippine Islands? Name the largest island of the group, and point out its place upon the map. What is its chief town called?

15. In what part of Asia are the islands of Japan? What is the name of the largest island of the group?

16. What proportion does their magnitude bear, as a whole, to that of England and Wales?

17. What is known respecting the natural features of Japan?

18. Say what you know concerning the climate and productions of Japan.

19. Mention some particulars respecting the industry of the Japanese people. For what branches of manufacture are they distinguished?

20. Under what kind of government is Japan? What is the prevailing religion?

21. How is Japan at present divided? What city is the capital?

22. Upon what islands are the towns of Yokohama, Saiki, Hakodadi, and Matamai? Point them out on the map.

¹ Tokio was at one time supposed to be the most populous city in the world, but the population, according to the last census

(December 1878), numbered 1,036,771, not a third of that of London.

² Formerly called Kioto.

AFRICA.

AFRICA¹ is the south-western portion of the Old World, and is the only one of its three continents that stretches to the southward of the equator. By much the larger portion of its surface, however, falls within the northern hemisphere. Regarding it as a whole, this continent forms a vast peninsula, connected with the Asiatic continent by the Isthmus of Suez.

BOUNDARIES.—Africa is bounded on the *north* by the Mediterranean Sea; on the *west* by the Atlantic Ocean; on the *east* by the Red Sea and the Indian Ocean; on the *south* by the Southern Ocean, a name which is given to the southwardly belt of water in which the Atlantic and Indian Oceans mingle.

EXTENT.—In point of size, Africa is more than three times larger than Europe, but nearly one-third smaller than the Asiatic continent. Its *area* is equal to about 12,000,000 square miles.

The **extreme points** of the continent are *Cape Blanco* (37° 21' north), on the north; *Cape Agulhas* (34° 56' south), on the south; *Cape Verde* (17° 40' west), on the west; and *Cape Guardafui* (51° 10' east), on the east. The distances between these points, that is, the greatest length and breadth of Africa, are 5000 and 4600 miles respectively.

COASTS.—One of the chief things to be noticed about Africa is its solid, unbroken shape, and the general regularity of its coast-line. The sea nowhere penetrates any considerable distance towards the interior, and the vast bulk of the continent is quite unaffected by its influence. Africa has therefore few gulfs or inlets of any extent.

The total length of the coast-line of Africa is estimated at 16,000 miles, or an average of 1 mile of coast to every 750 square miles. Contrasting this proportion with that of the other continents, we find that Europe has nearly four times; Australia, three and a half times; North America, twice; and Asia, one and a half times, the extent of coast-line in proportion to area as Africa.

1. **CAPES.**—The following are the most important:—

- (1.) *On the north*: Bon, Blanco,² Ceuta, and Spartel.
- (2.) *On the west*: Bojador,³ Blanco, Verde,⁴ Palmas, Lopez, and Frio.
- (3.) *On the south*: Good Hope⁵ and Agulhas.⁶
- (4.) *On the east*: Corrientes,⁷ St. Sebastian, Delgado, and Guardafui.

Cape Bon makes near approach to the island of Sicily; *Cape Blanco*, on the Mediterranean coast, is the most *northerly* point of the African continent. There is another *Cape Blanco*, a famous headland, on the western side of Africa. *Cape Verde* is the most *westerly* point of Africa; *Cape Guardafui* is the most *easterly*; and *Cape Agulhas* is the most *southerly*.

¹ The name *Africa* was given by the Romans to the Carthaginian territories (Tunis, &c.), and was subsequently applied to the whole continent.

² Blanco, white. Cf. *Mont Blanc*.

³ Bojador, the "round" cape.

⁴ Verde, "green," so called from the colour of the sea between it and the islands of the same name.

⁵ Cape of Good Hope. This famous headland was discovered in 1487 by Bartholomew Diaz, who named it *Cabo Tormentoso*, the Cape of Tempests, afterwards changed by John III., king of Portugal, to *Cabo de Boa Esperanza*, the Cape of Good Hope.

⁶ Agulhas, "needles." Off this Cape is the *vast Bank of Agulhas*.

⁷ Corrientes, "currents."

2. INLETS.—The principal inland seas and gulfs along the African coasts are :—

- (1.) On the *north*, the Mediterranean Sea, with the Gulfs of Sidra and Kabes.
- (2.) On the *west*, the Gulf of Guinea, a broad arm of the Atlantic, with the Bights of Benin and Biafra, Walfisch Bay, and Table Bay.
- (3.) On the *south*, False Bay, Mossel Bay, and Algoa Bay.
- (4.) On the *east*, the Red Sea, with the Gulf of Suez, Gulf of Aden, Sofala Bay, and Delagoa Bay.

The **Mediterranean** is common to all three of the continents of the Old World. But it is more European than either Asiatic or African. By far the larger portion of its coast-line is European, and while its northwardly coasts exhibit every variety of contour, embracing numerous peninsulas and intervening channels, its southward (or African) line of coast is comparatively unbroken. The Gulfs of Sidra and Kabes are the two chief inlets on the Mediterranean portion of the African coasts. The Gulf of Sidra was called by the ancients *Syrtis major*,¹ and was dreaded by them on account of its shallows and shifting sands. The Gulf of Kabes, farther west, was the *Syrtis minor* of antiquity.

3. CHANNELS and STRAITS.—The principal are :—

- (1.) *Strait of Gibraltar*, between Morocco and Spain.
- (2.) *Mozambique Channel*, between Madagascar and the mainland.
- (3.) *Strait of Bab-el-Mandeb*,² between the Red Sea and the Gulf of Aden.

ISLANDS.³—On the *side of the Atlantic* are—Madeira, the Canary Islands, the Cape Verde Islands; the four islands in the Gulf of Guinea (Fernando Po, Princes Island, St. Thomas, and Annabon); Ascension, St. Helena, and the Tristan d'Acunha group.

On the *side of the Indian Ocean*—Madagascar, Bourbon, Mauritius, the Comoro Islands, the Seychelle Islands, the Amirante group, and Socotra.

In the Red Sea there are numerous islands which adjoin the African coast, and there are also a few in the Mediterranean. But these are small and unimportant. Madagascar is second only in size to the island of Borneo, and therefore the second largest island in the world.

MOUNTAINS.—One of the most striking features in the relief of the African continent is the general parallelism and proximity of all the more considerable mountain-ranges to the adjacent coasts. With the exception of a few, and, as yet, scarcely known, ranges in the interior, the mountains of Africa may be divided into four systems, *northern, western, southern, and eastern*.

1. The **Northern System** is the most extensive and best-known mountain-system of Africa, and is distinguished by the name of Atlas. The chains of *Mount Atlas* (as the whole of the mountain-region is called) stretch through a large part of northern Africa, parallel to the Mediterranean coasts and the nearest portion of the Atlantic shores. The westerly portion of the Atlas (that which passes through Morocco) is the most elevated, and the highest summit there, *Mount Mulsin*, has an elevation of 11,400 feet. The eastern portions of the system—in Algeria,⁴ Tunis, and Tripoli—are much less elevated, the average height rarely exceeding 3000 feet.

¹ Latin, *syrtis*, a quicksand.

² *Bab-el-Mandeb*, "the gate of tears."

³ Described under "Islands of Africa."

⁴ In Algeria is Mt. Chelloua 7611 ft.

2. The **Western System** belongs to the western coasts of tropical Africa, and the main range stretches in a direction parallel to the Gulf of Guinea. This is known by the general name of Kong—a word which is said to signify “mountains.” The average height of the *Kong Mountains* is 3000 feet. Near the head of the Bight of Biafra are the semi-dormant volcanic *Cameroom Mountains*, which culminate in *Mount Albert*. Thence south, a series of more or less well-defined ranges extend south at varying distances from the coast to the Congo, and through Damara and Namaqua Land to the *Lange Berg*, a north-westerly offshoot of the southern chains.

3. The **Southern System** belongs to the extreme south of Africa. A chain called the *Nieuweld* (and, in its eastern part, the *Sneeuberg*, or *Snowy Mountains*) stretches through the Cape Colony, in the direction of east and west. Its highest summits exceed 10,000 feet. The highest peak in the *Compassberg* reaches an elevation of 7400 feet. *Table Mountain*, the culminating point of an isolated group near the Cape of Good Hope, is 3582 feet above the sea.

4. The **Eastern System** includes all the ranges which buttress the central plateau of Africa, and extends with some interruptions from the eastern portions of the great southern ranges to the Abyssinian mountains. The *Drakensberg* or *Quathlamba* forms the western boundary of Natal and, farther north, the eastern frontier of the Transvaal, and culminates in Catkin Peak, 10,357 feet. Then we have the *Lupata Mountains*, between the Limpopo and the Zambesi; the *Livingstone Mountains* (11,000 feet), on the borders of Lake Nyassa; *Mount Kilimandjaro* (22,814 feet) and *Mount Kenia* (probably 20,000 feet), the culminating points of the highlands between Victoria Nyanza and the coast, north of which lies the mountain-system which occupies Abyssinia. The mountains of Abyssinia are several thousand feet above the sea-level, and several of their summits rise to an absolute elevation of 15,000 feet.

TABLELANDS.—The principal are the *Great African Plateau*, lying between the parallels of 10° N. and 30° S., and limited on the east and west by more or less continuous ranges; the *Plateau of Abyssinia*, which has an average elevation of at least 7000 feet; the *Barca Plateau*, on the east side of the Gulf of Sidra; the *Plateau of Barbary*, occupying most of the Barbary States and extending from the Sahara on the south to the Mediterranean on the north; and the *Plateau of Ahir* or *Asben*, in the Sahara.

PLAINS.—The interior of Africa appears to consist of vast plains, alternating in some places with tracts of high ground, but nowhere exhibiting extended mountain-chains such as those which stretch through the Asiatic continent. To the northward of the equator, the plains of interior Africa embrace the region of the Desert, and the fertile lowland watered by the Niger and the rivers belonging to the basin of Lake Chad. In the southern half of Africa, the interior—so far as known—consists of watered plains, lying at a considerable elevation above the sea, but bordered by tracts of higher ground upon either side. The rivers of the interior find their way through these bordering high grounds, and descend thence to the eastern and western coasts.

DESERTS.—The great natural feature of Africa—surpassing all others in magnitude and importance—is its Desert, or Sahara, which stretches across the entire breadth of the continent, and is by much the largest desert in the world, as well as the most perfectly barren of such regions.

1. The region known as the **Sahara**¹ extends in the direction of east and west through 3000 miles, from the shores of the Atlantic Ocean to the valley of the Nile. In the opposite direction, it is limited by the slopes of Mount Atlas on the north, and the basin of the Niger and Lake Chad to the southward, having a breadth which averages a thousand miles. This immense region is not uniformly barren, nor does its surface exhibit perfect uniformity of aspect.

(1.) In general, the African desert forms a plateau of moderate elevation (averaging from 1000 to 1500 feet above the sea). In some places chains of hills cross this plateau, and rise to several hundred feet above its level. The surface of the wilderness exhibits, however, for the most part, a sandy or gravelly waste, furrowed at frequent intervals by the beds of water-courses, which are dry during ten months of the year. The absence of running streams is the most marked characteristic of the desert. Springs occur at distant intervals; and wherever they are found an *oasis*² of verdure is created.

(2.) The most sterile portion of the Sahara is its westerly division—that is, the part intermediate between Fezzan and the shores of the Atlantic. Extensive tracts are there covered with dry and heated sand, raised into hillocks which shift their place under the influence of the wind. The oases are there at longer distances apart than is the case in its more eastwardly portion.

2. There are some extensive deserts in Southern Africa, towards the extremity of the continent in that direction. They consist of arid and gravelly plains, locally known as *karroos*. The **Great Karroo** is within the southward division of the Cape Colony. The **Desert of Kalahari** is to the north of the Orange river.

RIVERS.—The chief rivers of Africa are :—

1. *Flowing into the Mediterranean Sea*—The Nile, Mejdah, Roumel, Shéiff, and Mulwia.

2. *Flowing into the Atlantic Ocean*—Senegal, Gambia, Rio Grande, Niger, or Quorra, Ogowai, Congo or Livingstone, Coanza, and Orange.

3. *Flowing into the Indian Ocean*—Zambesi, Limpopo, Rovuma, Lufiji, Juba, and Webbe.

(1.) The **Nile** is formed by two streams, the **White Nile** and **Blue Nile**, which unite near Khartum in Nubia. The *Blue Nile*³ rises in the mountains of Abyssinia; and the *White Nile*,⁴ which is much longer, has its source in the Victoria Nyanza, under the equator. The river discharges its waters into the Mediterranean by a delta, after a course of at least 3000 miles. The area of its basin is small in comparison to its length. Below Khartum it receives only one considerable tributary, the *Atbara*, thence to the sea, a distance of 1400 miles, it flows in a narrow and rocky valley of from 2 to 12 miles wide, in Nubia and Upper Egypt; but in the plain of Lower Egypt it divides into two branches, within which a large delta is enclosed. Further particulars of the Nile, its periodical rise, &c., are given under "Egypt."

(2.) The **Congo**⁵ or **Livingstone** river, explored by Stanley in 1876-77, rises in the Urungu Mountains, south of Lake Tanganyika, as the *Chambesi*, which enters Lake Bangweolo or Bemba, and leaves it as the *Lualaba*, which flows into Lake Moëro. Thence it flows north as the *Lualaba*, to Lake Kamolondo, and leaves the latter under its proper name, the Congo, its course being interrupted by many rapids and falls. The Stanley Falls are nearly under

¹ That is, the Desert, which is what the word *Sahara* (*Arabic*) means. In pronouncing this word, the accent should be laid upon the first syllable, the second *a* being short, thus, *Sáhara*.

² The word *oasis* is probably derived from a Coptic term signifying "a resting-place." The perennial spring of water naturally be-

comes the resting-place of the traveller across the wilderness. ³ The *oasis* of the desert, possessing verdure in the midst of surrounding sterility—has been often likened to an island in the midst of the ocean.

⁴ Bahr-el-Azrek.

⁵ Bahr-el-Abiad.

⁶ Also called *Zaire*.

the intersection of the 25th meridian east long. with the equator.¹ North of the equator it turns to the south-west, and enters the sea by an estuary six miles wide. It receives several large streams in different parts of its course, and discharges as large a volume of water as the Mississippi. Its total length has been estimated at 2900 miles.

(3.) The **Senegal** (900 miles) and the **Gambia** (650 miles) rise near each other on the north-western slopes of the Kong Mountains. Both are navigable, the former for 150 miles in the dry, but 500 in the rainy season, the latter for nearly 400 miles.

(4.) The **Niger** or **Quorra** rises in the same region as the Senegal and Gambia, and flows north-east under the name of *Joliba* to Timbuctoo, and then turns east and finally south. Just before piercing the Kong chain it receives on its left bank a large tributary, the *Chadda* or *Benue*. After a course of 2300 miles it enters the Gulf of Guinea by several mouths.

(5.) The **Zambesi**, explored by Livingstone in 1856, is the largest river of eastern Africa, and rises under the name of *Leeba* in Lake Dilolo, about 200 miles south of which it is joined by the *Leambye* on the left bank. It then turns south-east for 300 miles. About 40 miles east of its confluence with the *Chobe*, or 900 miles from the sea, the river is suddenly precipitated into a narrow but deep gorge forming the magnificent Victoria Falls. Thence it flows in a generally eastern direction to the sea, into which it falls by several mouths after a total course of 2400 miles. About 100 miles from the sea it is joined on the left bank by the *Shire*, which drains Lake Nyassa. The Zambesi, like the Nile, periodically inundates its large delta, and is navigable to Tete, 260 miles from the sea. The course of the Shire is unfortunately interrupted (about 100 miles above its confluence with the Zambesi) by the Murchison Falls.

LAKES.—The northern half of Africa contains the following :—Lake Chad, situated in Soudan ; Lake Dembea, in Abyssinia ; Lake Keroun, in Egypt.

The largest is *Lake Chad*, which covers several thousand square miles during seasons of flood, but is greatly contracted at other times, and is little more than a vast swamp. It receives the waters of an extensive system of rivers, among which the *Shary* and the *Yeu* are the most considerable. Lake Chad has no outlet : its water is fresh.

Several large lakes have been discovered during recent years, within the central and southern interior of the African continent. Two of them—the *Victoria Nyanza* and *Albert Nyanza*²—belong to the basin of the Upper Nile, and lie immediately adjacent to the equator. *Lake Tanganyika*³ is farther to the south ; at a greater distance in that direction are *Lakes Nyassa*⁴ and *Shirwa*, the former of them connected with the Zambesi river, by means of its affluent, the Shire. *Lake Ngami*⁵ is within the more southern interior.

East of Lakes Tanganyika and Nyassa are the minor lakes of Bemba or Bangweolo (near which Livingstone died on the 1st of May 1873), Moïro, Kamolondo, Lincoln, &c., all drained by the Lualaba or Congo.

¹ The *Yellala Falls* are about 140 miles from the sea.

² The *Victoria Nyanza* was discovered by Captain Speke in 1858, and the *Albert Nyanza* by Sir Samuel Baker in 1864.

³ Lake Tanganyika was for a long time supposed to have no outlet, although its waters are fresh, while the waters of all other lakes without outlets are salt. The outlet discovered by Cameron, the *Lukuga*, was examined by Stanley, and pronounced to be a mere creek, choked up at its western end with aquatic vegetation. In May 1879, however, Mr. E. C. Hore, missionary at Ujiji, found that the impediment had been swept away in the previous rainy season,

and that a strong current was flowing rapidly west towards the Congo.

⁴ Lake Nyassa has been fully explored by the members of the Scottish Mission at Livingstonia, and will doubtless be of immense importance in opening up Central Africa, as, with the exception of about 70 miles at the Murchison Falls, there is a navigable waterway from its northern end to the sea.

⁵ Lake Ngami lies on the northern border of the *Kalahari Desert*, and receives the large river *Tlothe*. In the rainy season it overflows by the *Battatie* to the "Great Salt Pan" on the south-east.

EXAMINATION QUESTIONS.

1. How is Africa bounded, and what is its position with reference to the other divisions of the Old World?
2. What proportion does Africa bear, in point of size, to the European and Asiatic continents?
3. By what is Africa distinguished, as a whole, in respect of its shape or external contour?
4. Name some of the principal capes of Africa, and state which of them form respectively the most northern, southern, eastern, and western points of the continent.
5. Point on the map to the following:—Cape of Good Hope, Cape Palmas, Cape Bojador, Cape Sparte, and Cape Delgado.
6. What two gulfs occur on the Mediterranean coasts of Africa? Give their ancient as well as their modern names.
7. What gulf is on the west side of the African continent? What arms of the sea on its eastern side?
8. Name the principal islands of Africa.
9. Africa has four distinct mountain-systems. Name the principal ranges in each system.
10. State what you know of the tablelands and plains of Africa.
11. Give some account of the Sahara.
12. What is meant by the term *oasis*?
13. Name the other principal rivers of the African continent. Describe briefly the following rivers:—The Nile, Congo, Senegal, Niger, Zambesi.
14. What lakes belong to Africa, and which are the largest of the number?

CLIMATE.—Africa is the hottest division of the globe. This is readily accounted for; more than three-fourths of its extent fall within the Torrid Zone, and these portions of the continent exhibit a broad and unbroken mass of land, upon which the rays of a vertical sun act with intense power. The vast expanse of the desert (or Sahara), in particular, reflects an excessive amount of heat from its arid and waterless surface. The whole of this region forms a great natural furnace, the heated atmosphere generated in which is carried by the winds over distant lands and seas, only gradually losing its heat under the influence of the larger bodies of water.

1. The climate of tropical Africa¹ is for the most part dry, but a vast quantity of rain falls at particular periods of the year. The dry and rainy seasons succeed one another with perfect regularity, and they are the only seasons by which the climate of Africa, within the tropics, is distinguished. In the desert rain very seldom occurs, only at intervals of several years' duration, and intense aridity is its prevailing characteristic. But the plains of Central Africa, to the south of the desert, and also the low districts of the eastern and western coasts, have regular and abundant rains of annual recurrence.

2. The extreme portions of the African continent, both in the direction of north and south, fall within the Temperate Zones. The plains and valleys of the Atlas region have a climate which resembles, in all essential regards, that experienced on the opposite shores of the Mediterranean. The Cape Colony, at the other extremity of the continent, is somewhat cooler, and is less abundantly supplied with rain.

PRODUCTIONS.—The natural productions of Africa may be classified under the three heads of (1) Metals and Minerals; (2) Vegetation; (3) Zoology.

1. **Metals and Minerals.**—Little is known concerning the mineralogy of Africa; and, whatever its capabilities in this regard, the amount of mineral produce derived thence in the present day is comparatively small. The Atlas region has been found to include a rich variety of ores, among

¹ The climate of tropical Africa is unhealthy to Europeans, from its intense heat, and still more from the prevalence, within the coast-regions, of noxious exhalations (the result of a burning sun acting upon a

dense mass of vegetation, such as occurs at the mouths of the rivers and creeks), which generate fevers. Where any considerable elevation above the sea can be reached, these unhealthy influences disappear.

them *iron, copper, lead*, and other metals. Towards the opposite extremity of the continent, within the Cape Colony and the adjacent tracts of country, iron and other useful ores abound, and the region through which the river Zambesi flows is stated to contain *coal*, as well as various useful metals.

(1.) *Gold-dust*, derived from the beds of numerous rivers within tropical Africa, has been in all ages an article of export from this portion of the globe. Both the eastern and western coasts furnish gold, and a part of Guinea is especially distinguished as the "Gold Coast." The quantity of gold derived thence, however, in the present day is exceedingly trifling. Gold is also found in the Transvaal (Lydenberg) and other parts of South Africa.

(2.) *Diamonds* are found in Griqualand West, on the banks of the Vaal river. The first diamond was accidentally discovered in 1867. It is estimated that at first £40,000 worth of diamonds were found every week, but some of the most productive mines are now exhausted.

2. **Vegetation.**—A vast number of the plants native to the African continent differ in all respects from those that belong to the other divisions of the globe. It is to the southward of the great desert that the distinguishing characteristics of African botany are observed.

(1.) The vegetation which is native to *northern* Africa resembles that of the opposite shores of the Mediterranean. The rich fruits of southern Europe all grow to perfection in the watered valleys of the Atlas. The *fig, almond, orange, lemon, vine, mulberry*, and *peach* thrive there, and the mountain-sides are clothed with the luxuriant evergreen foliage of southern lands.

The plains that adjoin the southern base of the Atlas are the region of the *date-palm*. To this succeeds the desert, with its scanty covering of thorny shrubs and grasses—diversified by the occasional growth of palms, which distinguish every oasis in the wilderness. The desert is a vast natural barrier to the passage of the various forms of life—vegetable and animal alike—that belong to the regions by which it is limited upon either side, and the trees and plants of Central Africa are entirely distinct from those that belong to the shores of the Mediterranean.

(2.) The forests of *central* Africa include trees of vast size, most of them of species unknown in Europe. Among them are many which furnish timber of valuable quality, distinguished by the closeness of its texture and the beauty of its grain.

Some of the native plants yield articles of food such as are unknown in other lands. Among these is the *shea* or *butter-tree*—so called from a kind of butter which is derived from the kernel of its nut. The *baobab* or monkey-bread is one of the most valuable boons conferred by nature upon the Negro inhabitants of the regions watered by the Senegal and the Gambia. The *oil-palm* is another of the valuable productions of the western coasts. The palm-oil of commerce, now an article of extensive consumption in our own country, is expressed from its fruit. The *yam, ground-nut*, and other esculent roots are likewise among the native productions of the African soil within the tropics. The *cotton-plant* grows wild, as also do the *sugar-cane* and the *indigo-plant*, though they have not been generally turned to any account by the native population. The highlands lying to the south of Abyssinia are the native region of the *coffee-tree*.

(3.) The extreme *south* of the African continent, again, constitutes a third region of vegetable life, distinct from those of the north and the centre. The country to the south of the Orange river is the native seat of such plants as the *aloes* and the *heath* tribe. A vast variety of plants with thick fleshy leaves, and thin wiry roots—capable of thriving in a comparatively arid soil, such as belongs to the plains of that region—abound in the neighbourhood of the Cape of Good Hope. Some of the choicest ornaments of our greenhouses have been originally derived thence.

3. **Zoology.**—The regions which are marked out as the seats of distinct forms of vegetable life in the African continent are characterised by cognate differences in the animal world, though the line of division is perhaps less definite. The influence of the vast desert is, however, strikingly noticeable. The *lion* of Northern Africa is of a different species from that native to the southerly division of the continent. The *striped hyena*, which is common to Northern Africa with the neighbouring countries of western Asia, is not found to the south of the desert, where the *spotted hyena* takes its place. The *giraffe* or camelopard—an animal peculiar to the African division of the globe—is native to the whole interior of Southern Africa, but is not found either to the north of the desert or within its limits. The *zebra*, and other animals of the same family, again, are peculiar to Southern Africa; as also are the *elands*, and several other large members of the antelope kind.

(1.) Africa abounds more than any other of the continents in variety of animal life, and in the vast number of its mammalia; that is to say, it contains a vast number of native species (many of them peculiar to its soil), and exhibits also an immense numerical development of many among these species. This is especially the case in the interior plains of Southern Africa, which literally swarm with abundance of animal life. The various antelopes, and numerous members of the ox tribe, supply abundant examples of this. Vast herds of these animals range over the plains to the northward of the Orange river.

(2.) Among the quadrupeds which are peculiar to Africa may be mentioned the *hippopotamus* and *rhinoceros*. The former, which frequents the marshy banks of rivers and inland lakes, is found from the upper part of the Nile valley southward to the Orange river, and westward to the shores of the Atlantic Ocean; the *rhinoceros* is native to the plains of Central and Southern Africa. The African *elephant* belongs to the same wide-spread region, limited on the north by the impassable barrier of the desert. This latter tract would be nearly as impassable to man as it is to the lower animals, were it not for the *camel*, which fills in the northern half of the African continent the same place that it does in the arid wildernesses of Western Asia.

(3.) The quadrumanous order of animals (*monkeys, baboons, &c.*) is numerously developed in Africa, and its various members are found through nearly the whole extent of the continent, from the Atlas Mountains to the forests of the Cape Colony. Only in the desert, again, are they absent. The forests of the western coasts, within the tropics, give shelter to the species of apes which make nearest approach to the human form. The *chimpanzee* of Senegambia is surpassed in this respect by the *gorilla* of the Gaboon river,¹ within the woods adjoining which it was seen for the first time.

(4.) **Birds.**—Among birds, the *ostrich*² is peculiar to Africa. The guinea-fowl is the only member of the gallinaceous tribe native to this continent. The *sun-birds* of the western coast, and the *honey-suckers* of the Cape of Good Hope, are distinguished by their smallness of size as well as the brilliancy of their plumage.

(5.) **Reptiles.**—The *crocodile* of the Nile valley is one of the characteristic members of African zoology, in the reptile division of the animal kingdom. It belongs to other rivers within tropical Africa, as well as the Nile. *Serpents, lizards*, and other reptiles are sufficiently numerous in the marshy regions of the coast, but are less common in Africa than in some other divisions of the globe.

¹ The river Gaboon enters the eastern extremity of the Gulf of Guinea, a short distance to the north of the equator.

² In the Cape Colony and the Orange Free State the ostrich is domesticated and reared like sheep or cattle.

INHABITANTS.¹—Africa is the native home of the Negro family of man, to which the great bulk of its inhabitants belong. But in this, as in all other regards, the desert constitutes a region of division. The inhabitants of Northern Africa are *Berbers*, *Moors*, and *Arabs*—people of swarthy complexion, but perfectly distinct from the Negro type. The wandering inhabitants of the desert belong also to the Arab stock. It is not until the southern limit of the Sahara is passed that Negro Africa begins. This is the region known in African geography as Soudan—i.e., the land of the blacks, or Negroland.

The dark skin, thick lips, and woolly hair of the Negro are among the distinguishing features of that race. But there are numerous points of difference between the various Negro nations, as there are between the various nations of the European and Asiatic continents. The inhabitants of the Nile valley, in the present day, are chiefly of Arab race, excepting in its upper part, where they are mixed with native African nations.

Negro Africa includes the greater part of Africa within the tropics. The extreme south of this continent, like the extreme north, is peopled by other varieties of the human family. The native races of Southern Africa are *Hotentots* and *Kaffirs*—the former chiefly within the basin of the Orange river, the latter on the eastern borders of the Cape Colony and the adjacent shores of the Indian Ocean.

Religion.—The bulk of the people in central and south Africa are idolaters—making a “fetish” or god of any object. *Mohammedanism* prevails throughout Northern Africa, and is at the present day being actively extended by force of arms in the Soudan by the *Fellatahs*. *Christianity* is professed not only by the European colonists of South Africa, but also by the Copts of Egypt, and in a corrupted form by the Abyssinians.

DIVISIONS.—The exact political or territorial divisions of the greater part of Africa are unknown. Only the northern states (Egypt, &c.) and the South African colonies have anything like definite limits. The following are the main divisions:—

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. NORTHERN AFRICA (Morocco, Algeria, Tunis, and Tripoli). 2. EGYPT. 3. NUBIA. 4. ABYSSINIA. 5. CENTRAL AFRICA. | <ol style="list-style-type: none"> 6. WESTERN AFRICA. 7. EASTERN AFRICA. 8. SOUTHERN AFRICA (the Cape Colony, Natal, Orange Free State, Transvaal, and Zululand). 9. ISLANDS OF AFRICA. |
|---|---|

EXAMINATION QUESTIONS.

1. By what is the climate of Africa distinguished?
2. By what conditions are the rains distinguished?
3. What portions of Africa enjoy a temperate climate, and why?
4. Say what you know of the mineral productions of Africa.
5. Mention some of the fruits that flourish in Northern Africa.
6. What part of Africa is specially distinguished as the region of the date-palm?
7. Mention some of the distinguishing features of African vegetation south of the great desert.
8. The extreme south of the African continent forms a third region of vegetable life: what class of plants form a chief part of its distinguishing features?
9. Among carnivorous animals, mention some that are found in Africa.
10. To what parts of Africa are the giraffe and zebra native?
11. Which portion of the African continent is especially distinguished by its abundance of animal life? What classes

¹ The population of Africa is roughly estimated at 200 millions, i.e., only about 16 inhabitants to the square mile.

of animals are most numerous found there?

12. Among African quadrupeds are the hippopotamus, the rhinoceros, and the elephant: to what portions of Africa are they native?

13. Are animals of the quadrumanous order numerous in Africa? Which amongst them is remarkable for its near resemblance to the human figure, and where is it found?

14. What particulars do you know concerning the birds that are native to the African continent?

15. Of what branch of the human family is Africa the special home? By what peculiarities of appearance is this variety of mankind distinguished?

16. What races of people constitute the inhabitants of northern Africa?

17. Point on the map to those parts of the African continent which are the native seat of the Negro race. By what name is this region known in African geography?

18. What native races belong to the extreme south of the African continent?

19. Name the main divisions.

THE ATLAS REGION, OR NORTHERN AFRICA.

NORTHERN AFRICA embraces four distinct countries, known as MOROCCO, ALGERIA, TUNIS, and TRIPOLI. Morocco is the most westerly of the four, Tripoli the most easterly. They form together a continuous region, which stretches along the shores of the Mediterranean Sea and the nearest portion of the Atlantic.

1. **MOROCCO** is bounded on the west by the Atlantic Ocean, and has the Mediterranean Sea on a part of its northern frontier. On the south it is limited by the desert.

2. **ALGERIA** lies to the east of Morocco. The Mediterranean Sea bounds it to the northward, and the desert to the south.

3. **TUNIS** is east of Algeria. On the north and east it has the Mediterranean, on the south the desert.

4. **TRIPOLI** is to the east of Tunis. It consists of a long and narrow strip of country, between the Mediterranean and the desert, the sands of which approach closely to the sea throughout, and in some places advance into its waters.

NATURAL FEATURES.—Throughout Northern Africa the great features of nature are nearly uniform. The chains of *Mount Atlas* stretch through the entire length of these countries, but only attain any considerable height within Morocco. The plains between the Atlas and the sea, and the valleys that are included within the mountain-region, are the most fertile portions of the territory. The hill-sides, towards the Mediterranean and the Atlantic, are luxuriantly wooded. Their southern slopes pass gradually into the arid region of the desert.

Rivers and Lakes.—This portion of the African continent has no perennial rivers of any magnitude.¹ There are numberless winter torrents, but few of them preserve a continuous flow of water. The *lakes* which occur are chiefly to the south of the Atlas, and are little more than salt marshes.²

¹ The principal are the Tensift and Sebou, flowing into the Atlantic, and the Mulwia, Shellf, Roumel, and Mejerdah, flowing into the Mediterranean.

² The two largest expanses are the Shott

Melghir in Algeria, and the Shott Kébir in Tunis. The eastern end of the latter is only about ten miles from the head of the Gulf of Kades, and it is proposed to admit the sea-water by a canal.

CLIMATE.—The climate is warm and generally healthy, but the whole region is exposed, on its southern borders, to the hot winds of the adjacent Sahara. The *rains* are copious, but confined to particular seasons, and the soil, wherever sufficient moisture is obtained, is luxuriantly fertile.

INHABITANTS.—The whole population of Northern Africa perhaps amounts to 14,000,000. Morocco alone contains more than half the number. The least populous portion of the entire region is Tripoli, in which the cultivable land is limited to a mere narrow strip between the desert and the sea.

The people of Northern Africa are the *Berbers*, or (as they are called in Algeria) the *Kabyles*, who dwell in the mountains, and in the scattered villages throughout the Atlas region; *Moors*, who are the inhabitants of the cities; and *Arabs*, who live in the more open parts of the interior, principally within their own encampments. In Algeria, which belongs to France, there are also a great number of European settlers, chiefly French. The Berbers or Kabyles are supposed to be descended from the original inhabitants of this region. The Moors are a mixed race, sprung from intercourse between the natives and the numerous colonists (Arabs included) who have at various periods settled within these lands.

Religion.—The native population of Northern Africa is almost exclusively Mohammedan in point of religion. Jews are numerous in the towns. The manners and usages of the inhabitants are in many respects barbarous, or indicate, at the best, but a very low grade of civilisation.

INDUSTRY.—The industry of Northern Africa is not considerable. The preparation of *morocco leather* (from the skin of the native goat) is a pursuit in which the inhabitants excel. The larger portion of the whole region is pastoral, *sheep* and *goats* being very numerously reared.

The grain called *dhourrah* (or millet) is extensively grown; *wheat*, *barley*, and *maize* to a less extent. Within Algeria, since its possession by France, the cultivation of *cotton*, *tobacco*, the *cochineal-tree*, and *indigo* has been introduced.

Productions.—The native productions of Northern Africa include *wool*, *gum*, *bees'-wax*, *dates*, *olive-oil*, and *goat skins*. These are exported, and the manufactures of Europe introduced in their place.

Northern Africa, like the countries of western Asia, exhibits almost everywhere the traces of decay from a past condition of greatness and prosperity. The chief part of the countries enumerated above were comprehended within the empire of ancient Rome, and the frequent remains of Roman roads, temples, theatres, and aqueducts—their ruins now overgrown with the luxuriant vegetation of a semi-tropical climate—bear testimony to the greatness of the Roman power. In the immediate neighbourhood of Tunis are the remains of Carthage—once the rival of Rome. Farther to the eastward, within the territory of Tripoli, are the ruins of the Greek cities which formed the ancient Pentapolis—chief among them *Cyrene*, or *Grennah*, as it is now called.

DIVISIONS.—North Africa includes the following states:—(1.) Morocco; (2.) Algeria; (3.) Tunis; (4.) Tripoli, with Barca and Fezzan.

1. **MOROCCO**¹ (or Morocco), the most westerly of the Barbary States, extends from the Mediterranean on the north to the Sahara on the south, and from the Atlantic on the west to Algeria on the east. It has an area of about 260,000 square miles,² and a population variously estimated at from three to eight millions.

(1.) Morocco is physically divided into (1.) the "*Tell*," a strip of fertile land between the coast, and (2.) the highlands, embracing the minor and main ranges of the *Atlas*,³ south and east of which is (3.) the desert-region of the Sahara. The coast-districts are watered by the *Mulwia*, which flows into the Mediterranean, and the *Sebou* and *Tensift*, which enter the Atlantic. The southern slopes of the Atlas are drained into the *Wady Draha*, which is full only in the rainy season.

(2.) The fertile coast-region is occupied by the ruling people, the *Moors*, who conquered the country in the latter part of the seventh century; the rest of the country, mainly by the *Berbers*. There are also large numbers of Jews and Negroes. The vegetable productions comprise various grains (wheat, &c.) and fruits; but agriculture is in a very backward state. The principal articles of export to Great Britain are *almonds* and *wool*.

(3.) The form of *government* is that of an absolute despotism—the authority of the Sultan or emperor being entirely unrestricted in either religious or political affairs. Many of the Berber tribes are virtually independent, acknowledging no rule but that of their own chiefs. The chief *divisions* of the country are—the kingdoms of Fez and Morocco, and the territories of Suse, Draha, Tafilet, and Tuat.

(4.) The chief *towns* of Morocco are—Morocco (*population*, 50,000), Fez (*population*, 150,000), and Mequinez (*population*, 86,000), three inland cities situated within the plain at the western foot of the Atlas. Morocco is, nominally, the capital of the empire, but the Sultan also resides alternately at the two other imperial cities of Fez and Mequinez. Mogadore is the chief port of Morocco. Tangier, another port of considerable importance, is at the entrance of the Strait of Gibraltar, immediately beside Cape Spartel.

2. **ALGERIA**,⁴ the largest of the French colonial possessions, extends from the Mediterranean on the north to the Sahara on the south, and is bounded on the west by Morocco, and on the east by Tunis and Tripoli. Its total area is estimated at 198,960 square miles, and its population at 2,867,000, exclusive of wandering Bedouin tribes.

(1.) Algeria,⁵ like Morocco, is physically divided into three regions:—(1) the fertile "*Tell*," extending inland from the Mediterranean to the (2) bare highlands of the Atlas region, beyond which is (3) the Algerian Sahara, the western part of which forms a rocky plateau, between 1500 and 3000 feet high, while the eastern part is a low plain, in some places considerably below sea-level. The chief rivers are the *Roumel* and *Shelif*, both of which enter the Mediterranean. South of the mountains, the numerous periodical streams enter the *Shott Melghir*.

(2.) Only about one twenty-fifth of Algeria is cultivated. In the inland regions south of the *Tell* the only arable tracts are the artificially formed

¹ Morocco, Arabic, *Moghreb-el-aksa*, "the far west."

² i.e., nearly four and a half times that of England and Wales.

³ In Morocco the Atlas range has an average height of from 7000 to 9000 feet, and the

culminating point, Mount Milstein, is 11,400 feet high.

⁴ Fr. *Alger*.

⁵ Nearly equal to that of France, and about three times that of England and Wales.

"oases" round the artesian wells sunk by the French. The vegetable productions of the Tell country are similar to those of Southern Europe. The principal article of export to England is the "halfa" (or esparto grass), for making paper. Iron, lead, and copper are also largely exported. In 1878 the total imports had risen to £9,272,000, and the exports to £6,396,000.

(3.) Algeria is officially divided into three civil and military districts, *Oran* in the west, *Algiers* in the centre, and *Constantine* in the east. The whole colony was under strict military rule until 1871, when a civil government was established in the Tell country and the settled inland districts.¹

(4.) The chief towns of Algeria are *Algiers*, *Oran*, *Bona*, and *Constantine*. *Algiers*² (population, 58,000), the chief city of Algeria, is on the Mediterranean coast, as also are the small ports of *Oran* and *Bona*. *Constantine* (population, 34,000), is in the interior, on the banks of the Roumel, and is strongly fortified.

3. **TUNIS** is bounded on the north and east by the Mediterranean Sea, on the west by Algeria, and on the south by Tripoli. Its average width, from east to west, is about 100 miles, and its total area about 45,000 square miles. Its inhabitants, who are mainly Kabyles and Bedouin Arabs, number about 1,500,000.³

(1.) Tunis is physically a continuation of Algeria—the "Tell" of the coast being similarly succeeded by the central highlands and the desert-region beyond. The *Mejerdah* rises in Algeria, but the greater part of its course is within Tunis. South of the mountain-region is the *Shott Kébir*, a vast salt lake or swamp, whose surface is several feet below the level of the Mediterranean.

(2.) In proportion to its extent, Tunis possesses considerably more arable land than Algeria, and *wheat*, *olive-oil*, and *barley* are largely exported. There are also considerable native manufactures (silk and woollen stuffs, pottery, leather, &c.). The principal article of export to Great Britain is *esparto grass*. Most of the foreign trade of the country passes through Tunis, the capital, which is connected by rail with its port of *Goletta*. Tunis has a population of 125,000 (of whom 30,000 are Jews), and possesses considerable manufactures of silk and woollen stuffs. Thirteen miles north-east of Tunis is the site of the ancient city of Carthage. *Cairwan*, 80 miles south of Tunis, is the spiritual capital of Tunis, and was anciently the capital of the Arabian empire in North Africa. *Biserta* is an important port on the north coast.

(3.) Until 1860, when the present Bey granted a constitution, the form of government was a pure despotism. From 1575 the rulers of Tunis acknowledged the suzerainty of the Sultan of Turkey, but in 1871 the Bey ceased to pay tribute to the Porte, and was made virtually independent. In March 1881, 30,000 French troops crossed the border ostensibly to punish the Kroumirs for their raids into Algeria. The ulterior object of the expedition, however, was the establishment of French supremacy in Tunis. Consequently, on May 12, General Breard advanced towards the capital, and submitted to the Bey a treaty recognising a French Protectorate in Tunis. By the terms of this treaty the French are empowered to occupy any part of the coast and frontiers of Tunis, and all communications between the Bey and foreign powers must pass through the French Minister-Resident. Tunis is now, therefore, virtually a dependency of France.

¹ The French declared war against the Bey of Algiers in 1830, and in July the same year *Algiers* was bombarded and taken. Two years later *Bona* was occupied. But the Arab tribes of *Oran*, under the brave Abd-el-Kader, now resolutely contested the advance of the French, and it was not until his capture in 1847 that the Tell country was subdued. The Kabyles of the interior high-

lands repeatedly revolted, and kept the French troops almost constantly engaged until 1864. After the suppression of the insurrection of 1870-71, a civil administration was granted to the coast provinces.

² Bombarded by the English under Lord Exmouth 1816. Taken by the French 1830.

³ In the 16th century Tunis had 17,000,000 inhabitants, but in 1750 only about 5,000,000.

4. **TRIPOLI** is the most easterly of the Barbary States, and, politically, includes the adjoining territories of Fezzan and Barca. The total area of the province is estimated at 344,000 square miles,¹ the greater part of which is an absolutely barren desert.

(1.) The population of Tripoli is roughly estimated at 1,000,000, consisting mainly of Berbers, Arabs, and Tibboos. The only inhabited part of Tripoli proper is a narrow strip along the coast, and the fertile valleys on the northern slopes of the *Gharian* and the *Black Mountains*. The productions include various kinds of grains and fruits, tobacco, cotton, &c. Most of the products, not only of Tripoli itself but also of the Soudan, are exported from the capital, Tripoli² (population, 30,000), on the Mediterranean coast.

(2.) The large territory of **FEZZAN**³ lies to the southward of Tripoli, and comprehends an area of considerable extent, which, though devoid of perennial streams, yet constitutes a kind of oasis, and is fertile by comparison with the desert-regions between which it is enclosed on either side. The chief town of Fezzan is called *Mourzuk*. The principal commercial intercourse between central Africa and the shores of the Mediterranean passes through Fezzan by way of Mourzuk, which is on the direct line of communication between the city of Tripoli and the borders of Lake Chad.

(3.) **BARCA**,⁴ the ancient *Cyrenaica*, lies to the east of Tripoli. Barca is a rocky plateau, of an average elevation of 1500 feet. Its steep seaward slopes include many well-watered and fertile valleys. *Benghazi*⁵ (the ancient *Berenice*), the capital, is the second port of the regency.

(4.) Tripoli forms a *vilayet* or province of the Ottoman Empire;⁶ the Turkish governor resides at the town of Tripoli. Fezzan is ruled by a subordinate governor residing at Mourzuk. From 1869 to 1872 Barca formed a distinct province, but in the latter year it was again attached to the Regency of Tripoli.

EXAMINATION QUESTIONS ON NORTHERN AFRICA.

1. What four countries are embraced within Northern Africa?
2. What constitute the chief natural features of this region?
3. What kind of climate has Northern Africa?
4. What races of people are found among the inhabitants of this region?
5. What form of religion prevails in Northern Africa?
6. Say what you know concerning the pursuits of industry and productions of this part of Africa.
7. What remains of antiquity does Northern Africa exhibit, and to what period of antiquity do they chiefly belong?
8. Where are the remains of Carthage and Cyrene?

9. What are the chief physical features of Morocco?
10. Describe briefly the productions, industry, government, and chief towns of Morocco.
11. To what nation does Algeria belong? Describe its natural features.
12. What is the chief article of export to Great Britain?
13. Mention the chief events in the conquest of Algeria by the French.
14. Name the chief towns of Algeria.
15. How is Tunis bounded?
16. What are the chief productions?
17. State what you know of the recent invasion of Tunis by the French.
18. What territories are included in the Regency of Tripoli? Name the capital of each.

¹ About six times the area of England and Wales.

² Tripoli or *Tripolis*, the "three cities;" from the three ancient towns of Sabrata, Oea, and Leptis Magna. The modern Tripoli occupies the site of the ancient Oea.

³ Fezzan, the ancient *Phazania*, was conquered by the Turks in 1842.

⁴ Barca was colonised from Cyrene, B.C. 506, and formed part of the "Libya about Cyrene" mentioned in Acts ii. 10.

⁵ Benghazi is the starting-point of the caravan traffic to Wadai in the Soudan. It lies on the shore of the Gulf of Sidra—the *Syrtis Major* of the ancients.

⁶ Since 1835.

EGYPT.

EGYPT is the lower portion of the Nile valley, extending from the coast of the Mediterranean up to the First Cataract, a distance of between five and six hundred miles.

BOUNDARIES.—Egypt proper is bounded by the Mediterranean Sea on the *north*; by Nubia on the *south*; on the *east* by the Red Sea; and on the *west* by the desert, across which there is no defined line of frontier.

EXTENT.—The area of Egypt proper is officially estimated at 175,130 square miles, or three times that of England and Wales.

NATURAL FEATURES.—Egypt has two great natural features—the river *Nile* and the *Desert*. Cultivation is limited to the lands that immediately adjoin the former, and over which its inundations reach.

1. In its course through Egypt, excepting for the last 120 miles, the Nile flows into a narrow valley, which is strictly limited by high chains of rocks upon either side. These rocks, or rather hills (which reach in some places 1000 feet above the valley) divide the cultivable land from the desert, which begins immediately beyond. This desert reaches in one direction to the shore of the Red Sea, and on the other side forms part of the great wilderness of Northern Africa.

2. A hundred and twenty miles above the sea the Nile divides into two branches, called respectively (from the names of the towns situated near their outlets) the Rosetta and the Damietta branches. The former is the more westerly, the latter the easterly arm, of the river. The two enclose between them an extensive *delta*.¹ The Delta—or Lower Egypt, as that portion of the country is called—consists of a broad and watered plain, crossed by numerous channels, natural or artificial. Above the Delta, the habitable part of Egypt is limited to the immediate valley of the river, which seldom reaches more than seven or eight miles across, between the bordering chains of hills upon either side. Egypt, therefore—in so far as its habitable portion is concerned—is a much less extensive country than it appears to be upon the map.

3. The Nile overflows its banks annually, the river beginning to rise above its ordinary level in the month of June, and continuing to rise daily until the latter end of September, at which time nearly the whole valley is laid under water.² The waters afterwards gradually retire within their proper bed, leaving behind them a fertilising deposit, to which the abundant harvests of Egypt are due. During the time of “high Nile” (as the season of inundation is called), only the rising grounds upon which the villages are mostly built are seen above the flood, and Egypt presents the appearance of a vast inland sea—many of the inhabitants living in rafts upon the water. This periodical rise of the Nile is caused by the abundant rains in Abyssinia and the highland regions to the southward.

¹ A delta is the space enclosed between the various branches into which a river divides above its outlet. Such tracts of country necessarily assume a triangular shape, resembling the fourth letter of the Greek alphabet, Δ (Delta), whence the term is derived. It was to the region enclosed between the different arms of the Nile that the term was originally applied by the

Greeks. It has become extended, in modern geography, to all similar tracts of land. The Danube, the Rhine, the Volga, the Ganges, Indus, Amazon, and a great number of other rivers, form deltas. The extent of these tracts of land is continually increased by the deposition of sediment where the river meets the sea.

² The rise at Cairo is about 23 feet.

CLIMATE.—Egypt has a warm and dry climate. Excepting in the Delta, rain seldom occurs—in Upper Egypt only at long intervals, which are sometimes of two or three years' duration. The intense dryness of the air has been the means of preserving from decay the monuments of ancient art in which Egypt abounds.

INHABITANTS.—Egypt has upwards of 5,500,000 inhabitants,¹ the vast majority of which are of the Arab race, the offspring of the Arab settlers in Egypt within the period that immediately succeeded the Mohammedan conquest in the 10th century. The Egyptian Arabs constitute the agricultural population, or *fellahs*, as they are called. The descendants of the ancient Egyptian (or *Coptic*) race are about 500,000 in number. There are *Turks* (the ruling people), with *Armenians*, *Syrians*, *Jews*, and *Franks* or Europeans, in the towns.

Religion.—The inhabitants are almost uniformly followers of the Mohammedan religion, except in the case of the Copts—descendants of the ancient Egyptians—who form a Christian Church.

INDUSTRY.—The industry of the Egyptian population is almost exclusively devoted to the culture of the soil. The inundations of the Nile fertilise the land, and the limits reached by the waters of the river mark the extent of cultivation.

Abundant harvests of *wheat*, *dhourrah*, and other grains are raised, and *cotton* is grown to a considerable extent in the plains of the Delta. *Flax*, *sugar*, *hemp*, *tobacco*, *coffee*, *saffron*, *mulberries*, and *dates* all enter into the list of Egyptian agricultural produce. The cotton and surplus corn of Egypt are exported chiefly to England, and the manufactured productions of western Europe imported in return. The trade of Egypt, both foreign and internal, has vastly increased since the overthrow of the Turkish rule by Mehemet Ali. The construction of the Alexandria and Suez Railway re-opened the ancient route between Egypt and India, but the transit trade over this line has greatly declined since the opening of the Suez Canal. The canal was commenced in 1859 and completed in 1869. Its total length, from Port Said, on the Mediterranean (about 40 miles east of Damietta), to Suez, at the head of the Red Sea, is 92 miles. It is sufficiently deep to allow vessels drawing 25 feet 9 inches of water to pass through, but vessels cannot pass or cross each other except at the "sidings." The harbour at Port Said was artificially formed. The entire cost of the canal and subsidiary works was £17,500,000. In November 1876 the British government bought the Khedive's shares for £4,000,000. In 1879, 1477 vessels passed through the canal, of which 1144 belonged to Great Britain.

GOVERNMENT.—Egypt is nominally a province of the Turkish Empire, but the Khedive, as the present ruler is styled, is virtually independent.²

Mehemet Ali, the founder of the present dynasty, having in 1811 massacred the Mamelukes at Cairo, and thus made himself absolute ruler of the country, revolted from Turkey, and in 1830 his son, Ibrahim Pasha, invaded and conquered Syria. Syria, however, was restored to the Porte, but the succession to the throne of Egypt was made hereditary. The Sultan's

¹ An average of 30 to the square mile.

² The administration of Egypt is at present controlled by the representatives of

Great Britain and France, who have full powers to investigate every branch of the public service.

authority in Egypt gradually declined, and in 1866 the title of "Khediv-el-Misr," or King of Egypt, was granted to the Pasha. In 1873 the Khedive obtained the right of concluding treaties with foreign powers and maintaining an army, so that he is virtually an independent sovereign. The suzerainty of the Sultan, however, is still acknowledged by the payment of an annual tribute of £720,000.

DIVISIONS and TOWNS.—The Nile valley is divided, within Egypt, into Lower, Middle, and Upper. Lower Egypt consists of the Delta and the adjoining plains on either hand; Middle Egypt is that portion of the country which reaches from the apex of the Delta to the town of Manfaloot (lat. $27^{\circ} 17'$); Upper Egypt extends thence to the First Cataract and the Nubian frontier. The chief towns are :—

Divisions.	Chief Town.	Other Towns.
Lower Egypt, .	Alexandria.	Rosetta, Damietta, Suez.
Middle Egypt, .	Cairo.	Ghizeh.
Upper Egypt, .	Siout.	Kenneh, Assouan.

The only two really large cities of modern Egypt are *Cairo* and *Alexandria*. The former is the capital of the country, and the latter its chief seaport.

Cairo (*population*, 350,000) stands on the right or eastern bank of the Nile, a short distance above the head of the Delta. It is still an important centre of traffic between the East and the West, but its importance in this respect has greatly declined within recent years since the opening of the Suez Canal, previous to which the "overland route" line of communication passed from Alexandria, on the Mediterranean coast, to Cairo, and thence to Suez, at the head of the Red Sea. Cairo communicates by railway with each of those places. It owes its origin to the Arab conquerors of Egypt, by whom it was founded in the year 970.

Alexandria (*population*, 212,000) is a city of much older date. Its name commemorates that of Alexander the Great, by whom it was founded 332 B.C. It at once became a flourishing emporium of commercial intercourse, and grew rapidly into a splendid city, destined to rank only second in place among the cities of the Roman world. Within recent years the commercial greatness of Alexandria has in some degree revived, under the circumstances already referred to.¹

Rosetta (*population*, 15,000), on the western, and **Damietta** (*population*, 29,400), on the eastern mouth of the Nile, were formerly important seaports. **Suez** (*population*, 12,000), at the head of the Red Sea, belongs to Egypt, though Arabian rather than Egyptian by geographical position. It is now the southern terminus of the *Suez Canal*, which, crossing the isthmus of that name, connects the Mediterranean and Red Seas. **Port Said**, on the Mediterranean, to the east of Damietta, is the northern terminus of the canal. **Siout**, in Upper Egypt, is the present terminus of the Nile valley railway. The Nile, however, is freely navigable beyond Siout to the Second Cataract (Wady Halfa), in Nubia.

¹ Aboukir Bay, the scene of Nelson's great victory over the French fleet in 1798 (commonly known as the battle of the Nile), is a short distance east of Alexandria.

The objects regarded with most interest in Egypt are the works of a past age. The numerous antiquities that are found within the Nile valley supply an unfailing field of study to the admirer of ancient art. Amongst these monuments of bygone greatness are pyramids, tombs, temples, palaces, colossal statues, obelisks, sphinxes, and many other works.

The pyramids and the ruins of Thebes are the two more special localities which possess the kind of interest here referred to. The *Pyramids* are within a few miles' distance of Cairo, on the western bank of the river, and the well-known figure of the Sphinx, of colossal magnitude, is in their neighbourhood. The *Ruins of Thebes* are in a higher part of the Nile valley, within Upper Egypt, and are spread over a vast space upon either side of the river. *Assouan* (ancient Syene), the frontier town of Egypt, is 150 miles above the ruins of Thebes. The valley of the Nile becomes here contracted to a mere ravine, and a ledge of rock which crosses the bed of the river immediately above Assouan forms what is called the First Cataract, which, like all the so-called cataracts of the Nile, is really a mere rapid.

The desert to the westward of the Nile contains several *oases*, which are regarded as forming part of Egypt. The largest of these (distinguished as the Great Oasis) is immediately west of the ruins of Thebes. The others are known as the Little Oasis, the Western Oasis, and the Oasis of Sywah. The last is the most northwardly of the number, and lies at a farther distance than the others from the Nile. It contains a celebrated fountain, the supposed "Fountain of the Sun," and the locality of the ancient temple of Jupiter Ammon.

NUBIA.

NUBIA lies immediately south of Egypt, and extends from the frontier of Upper Egypt to Abyssinia. It is bounded on the *north* by Egypt, on the *east* by the Red Sea, on the *south* by Abyssinia, and on the *west* by the desert. The area of Nubia is estimated at about 350,000 square miles, or six times that of England and Wales.

NATURAL FEATURES.—The great features of Nubia, like those of Egypt, are the Nile valley and the desert. In Upper Nubia, the two branches of the Nile—the Blue and the White Nile (*Bahr-el-Azrek* and *Bahr-el-Abiad*)—unite their waters nearly at the point where the town of Khartum is situated. The united stream is joined, some distance below, by the river Atbara or Tecazze, which rises in the highlands of Abyssinia, to the south-eastward.

The lands watered by the Blue Nile and the Atbara exhibit a diversified surface, with alternate forests and savannahs. Below the junction of the Atbara—that is, in Middle and Lower Nubia—cultivation is limited to the immediate banks of the Nile. The valley of the Nile becomes there a mere ravine, bordered on either hand by chains of rocks, as in Egypt, and of much narrower limits than in the latter country. In some places, where openings occur in the bordering mountains, the sands of the adjoining desert come close up to the river's bank.

CLIMATE and PRODUCTIONS.—The climate of Nubia is more tropical than that of Egypt, and the vegetation bears greater resemblance to that of the Torrid Zone, within which, indeed, nearly

the entire country is situated, but by far the larger part of the country is an arid wilderness, and even the watered districts are tenanted principally by the wild beasts of the forest.

Groups of the *acacia*, the *mimosa*, and the *date-palm* mark the course of the Nile, and the *sugar-cane* grows wild in the neighbourhood of its banks. The *senna-plant* is a production of Nubia. Vast forests (among which the ebony-tree and other hard woods are found) occur in the south-eastern division of the country.

INHABITANTS.—Nubia is very thinly populated, the entire number of its inhabitants being probably below one million. In the southern parts of the country the Nubians proper are largely intermixed with Negro tribes.

INDUSTRY.—The scattered villages which occur at intervals along the banks of the Nile mark the abodes of an agricultural population, such as that of Nubia exclusively is. The *dhourrah* grown in their fields, with the fruit of the *date-palm*, and a small quantity of *tobacco*, are almost the sole articles of Nubian industry.

Commerce.—The only commerce which the country possesses is a transit trade. The caravans which convey the produce of central Africa to the bazaars of Cairo pass through Nubia, and the traffic in slaves constitutes the most important (as well as the most shameful) item in this branch of industry.

GOVERNMENT.—Nubia is subject to the Khedive of Egypt, who rules it by means of a Governor-General, resident at Khartum.

The authority of the Khedive also extends over large territories within the Soudan, and embracing—(1.) *Kordofan*, lying west of Upper Nubia, conquered by Mehemet Ali in 1821; (2.) *Darfur*, annexed to Egypt in 1875; and (3.) *Eastern Soudan* and the Red Sea coast, comprising the territories north and east of Abyssinia. The annexation of the provinces north of the Abyssinian plateau was followed in 1866 by the occupation of the port of Massowah and the adjoining coast-district, thus completely isolating Abyssinia, and depriving it of its only outlet to the sea. South of Massowah also the Egyptian dominions have been extended by the annexation of the *Danakil* country, between Abyssinia and the Red Sea, and the occupation of Berberah (in 1873), and Zeyla and Harrar (in 1875), and adjoining territories. (4.) Along the *Upper Nile Valley* the Egyptians have extended their conquests still farther south, and have established military stations at Gondokoro (now replaced by Lardo, on the opposite side of the Nile) and other places. In fact, the whole of the Nile basin (with the exception of portions of the basins of the Blue Nile and Atbara), from the great lakes to the Mediterranean, a direct distance of more than 2000 miles, is now under the rule of the Khedive, who is thus by far the most powerful of the native sovereigns of Africa.

TOWNS.—Upper Nubia contains the town of **Khartum** (*population*, 50,000), which is the largest place in Nubia, and the seat of government for the whole country, as well as for the adjoining regions of Soudan. Khartum stands on the Blue Nile, a short distance above the junction of the White River. **Sennaar**, also in Upper Nubia, is on the Blue Nile. **New Dongola** (*population*, 6000), on the left bank of the Nile, lower down its course, is one of the most thriving of Nubian towns. Still lower down (a short distance below the Second Cataract) is **Ebsambul**, which is noteworthy for its magnificent rock-cut temple of ancient date. The only seaport of Nubia is **Souakin**, a small place on the Red Sea.

ABYSSINIA.

ABYSSINIA is to the south-east of Nubia. Its limits are indeterminate, excepting to the eastward, where they coincide with the eastwardly termination of the plateau-lands of which the country throughout consists. Between this well-marked range of high ground and the shore of the Red Sea there intervenes a heated and arid plain. The area of the country is roughly estimated at 158,000 square miles, or about two and a half times that of England and Wales.

NATURAL FEATURES.—Abyssinia exhibits a succession of lofty tablelands, crossed by mountain-chains, and intersected by deep ravines. Its mountains, some of which reach 15,000 feet above the sea, and are covered with unmelting snows, are among the highest in Africa.¹

Rivers.—Abyssinia includes the large lake of *Dembea* (or *Tzana*) and the sources of the *Blue Nile*. The latter are found in the mountains of Geesh, at an elevation of 8700 feet. The upper course of the *Atbara*, or *Tecazze*, is also within this region. The *Hawash*, another considerable river, flows to the eastward, and is lost in a salt marsh.

Climate.—The climate of Abyssinia is intensely hot in the lower grounds, but is temperate and healthy on the upland plains of the interior. At Gondar the mean temperature is about 60° Fahr.

Productions.—The mineral resources of the country are said to be considerable, but they are as yet undeveloped. The soil is fertile, and in the lower valleys *cotton*, *sugar*, *coffee*, &c., are produced. On the higher grounds (from 5000 to 9000 feet) the various kinds of grain and fruits are extensively grown, while on the highest regions (up to 14,000 feet) large herds of cattle and sheep are reared.

INHABITANTS.—Abyssinia is said to contain 3,000,000 of inhabitants, among whom are people of several different races,² most of them in a condition little above that of savage life. The ruling people (at least in some parts of the country) are the Gallas—a race of savage warriors who came originally from the southward, and have overrun many of the finest provinces.

The habits of the Abyssinians are coarse and barbarous, and many of their usages distinguished by great cruelty, accompanied with a disregard of human life. They eat raw flesh at their banquets, and leave the dead bodies of criminals exposed in the streets, to be torn in pieces by wild beasts.

Religion.—A debased form of the Christian religion is nominally recognised by great part of the population, but the Gallas are Pagans. There are also many Mohammedans and Jews.

GOVERNMENT.—Abyssinia was formerly a powerful state, governed from the earliest times by an absolute ruler styled the “king of kings.” The country is now, however, broken up into several distinct states, of which the principal are Tigre in the north, Amhara in the centre, and Shoa in the south.

¹ The culminating point is *Ras Detschen* or *Ras Dasha* (15,986 feet), in the Samen range.

² Hence the name of the country, *Abyssinia*, from the Arabic *habesh*, “confusion,” i.e., in reference to its mixed population.

For a time the ruler of Shoa claimed the sovereignty of the country, but Theodore, a robber chieftain of Amhara, having seized the supreme power, was proclaimed king of Abyssinia. Having arrested and imprisoned British subjects in 1863, and refusing to release them, an expedition under Sir R. Napier was sent from Bombay. The British forces landed in January 1868, at Annesley Bay, and advanced towards the fortress of Magdala, which was stormed and captured. During the assault, Theodore killed himself. Soon after the withdrawal of the British forces, Prince Kassai of Tigre claimed the throne, and, having defeated a rival chieftain, was crowned king in 1872—the southern province of Shoa, however, remaining entirely independent. The Khedive's troops entered Abyssinia in 1874, but were defeated. In April, 1876, a treaty was signed, and shortly after the Egyptian troops evacuated the country.

DIVISIONS and TOWNS.—The chief divisions and towns of Abyssinia are as follow :—

Divisions.	Chief Town.	Other Towns.
Tigre, . . .	Adowa.	Antalo, Sokota.
Amhara, . . .	Gondar.	Debra-Tabor, Magdala.
Shoa, . . .	Ankobar.	Angolala, Amba.

Gondar (*population*, 6000), the former capital of Abyssinia, is situated to the northward of Lake Dembea. **Debra-Tabor**, more recently the capital, lies to the east of Lake Dembea. **Magdala**, taken by the British in 1868, is still farther to the east. **Ankobar** lies in the south-eastern division of the country, towards the basin of the Hawash river. **Massowah**, on an island which adjoins the western shore of the Red Sea, is, together with the adjacent coast, under subjection to the ruler of Egypt.

QUESTIONS ON THE NILE COUNTRIES.

1. What three countries are comprehended within the region watered by the Nile? Point them out upon the map.
2. How is Egypt bounded, and what are its two great natural features?
3. Which part of Egypt is known as the Delta? What is meant by the term *delta* in a geographical sense?
4. By what is the Nile, in its course through Egypt, distinguished?
5. What kind of climate has Egypt?
6. To what race do the majority of the people of Egypt belong? What are their chief pursuits?
7. In what way is the rise of the Nile connected with the industrial pursuits of the Egyptian population?
8. What articles of produce does Egypt furnish to other lands?
9. How is Egypt divided? Point out these divisions on the map.
10. Which are the two largest among the cities of Egypt? Point them out upon the map.
11. To what circumstance is the commercial and political importance of Egypt in the present day mainly due?
12. By whom was the city of Alexandria founded? In what year?
13. What locality of historic note is in the vicinity of Alexandria?
14. Where are Rosetta, Damietta, Suez, Port Said, Siout, and Assouan?
15. What objects of interest, the works of a former age, does Egypt contain?
16. What oases are included within the limits of Egypt?
17. Under what government is Egypt?
18. How is Nubia bounded? What are its chief natural features?
19. What kind of climate has Nubia? Name some of its vegetable productions.
20. Say what you know concerning the inhabitants of Nubia.
21. What towns does Nubia contain? Which of them is the capital? Point to its place upon the map.
22. How is Abyssinia situated with regard to Nubia? By what sea is it bounded to the eastward?
23. What kind of a country is Abyssinia as to natural features?
24. Say what you know concerning the people of Abyssinia.
25. Into what three states is Abyssinia divided? Name the chief towns in each.

CENTRAL AFRICA.

NEGRO AFRICA embraces three leading divisions—the Central Plains of the interior to the south of the desert; the Western Coasts, within the tropics; and the Eastern Coasts, from the equator southward to the neighbourhood of the Tropic of Capricorn.

BOUNDARIES.—The plain of interior Africa, to the northward of the equator, is bounded on the *north* by the Sahara; on the *south* by the Kong Mountains, and (farther east) by the unknown regions in the heart of the continent; on the *east* it adjoins the countries watered by the upper course of the Nile; on the *west* those in which the rivers Senegal and Gambia have their origin.

EXTENT.—The region thus marked out includes not much less than 3000 miles in the direction of east and west, and nearly 1000 miles in that of north and south.

NATURAL FEATURES.—Central Africa is a fertile, watered, and moderately-elevated plain. It includes the basin of *Lake Chad* and the middle and upper portions of the great river *Niger*.

1. *Lake Chad* receives the drainage of an extensive tract of country, the limits of which to the east and south are unknown. Of the rivers which discharge into it, the chief are the *Shary*, from the south, and the *Yeou* on its western side. The lake itself is shallow, and becomes much contracted in size during the dry season of the year. It contains numerous islands.

2. The river *Niger* (or *Quorra*, as it is called by the natives) rises near the western extremity of the Kong Mountains, and has a course of 2300 miles before it reaches the sea. About 300 miles above its mouth, the *Niger* is joined by the large river *Chadda*, or *Benué*, which waters an extensive region of the interior. Below the junction, it passes through the highlands of the Kong mountain-system, and enters the low plain of the coast.

CLIMATE.—The climate of Central Africa is thoroughly tropical, and portions of this region are probably among the hottest on the globe. But it does not appear to be unhealthy, and is at any rate free from the pestilential influences of the coast. The rains and the season of drought succeed one another with undeviating regularity, the rainy season coinciding with the position of the sun to the north of the equator.

INHABITANTS.—The inhabitants of Central Africa are not exclusively of Negro race. A large proportion of them are of mixed descent, partly of Moorish or Arab blood. The latter are known as *Fellatahs*, and are most numerous in the neighbourhood of *Lake Chad* and to the westward of the *Niger*; the pure Negro race to the west of that river.

1. The *Fellatahs* occupy a position which is politically and socially in advance of the pure Negro races, and have carried with them into the heart of the African continent the rites of the Mohammedan worship and the precepts of the Koran. The Negroes themselves, when not converted to Mohammedanism, are uniformly heathen, followers of the system known as *fetichism*—that is, the adoration of particular objects invested by them with a sacred character, and known as *fetiches*.

2. The native populations of Central Africa occupy a low place in the scale of social advancement. Still, they are not barbarians—at least not in the worst sense of the term. They have adopted settled habits of life, cultivate their fields, weave cotton cloth with some skill, and dye it of bright colours. Many of their towns are of considerable size, and the courts of their native monarchs display various attempts at a rude kind of splendour and dignity.

3. The great obstacle to social advancement on the part of the Negro race has been the slave trade. The numerous petty kingdoms into which Negro Africa is divided engage in frequent warfare with one another, for the express purpose of making prisoners to be sold to the slave merchant. Slave-hunting expeditions are fitted out by the most powerful sovereigns against their weaker neighbours, the villages of the latter burned, the children and the aged slaughtered, in order that the able-bodied may be marched in gangs across the desert, or down to the coast, to be sold into slavery. This has always been the bane of the Negro population of Africa, and the substitution of a more legitimate commerce is hence looked forward to as the best means of improving their condition.

PRODUCTIONS.—The commercial productions of Negro Africa are chiefly gold-dust, ivory, ostrich feathers—besides slaves, which formerly constituted a much more important item than at present.

A great deal of trade is carried on between Central Africa and the countries on the Mediterranean coast by means of caravans which cross the desert. The merchants engaged in this trade are principally Moors. Articles of European manufacture are introduced by this channel into the heart of the African continent.

DIVISIONS.—The numerous petty divisions into which this part of Africa is parcelled out are fluctuating in extent, and they exercise no influence beyond their own immediate limits.

One of the most important localities in Central Africa is the town of **Timbuctoo**, which stands in the plain on the north side of the Niger, a few miles distant from that river. Timbuctoo is a town of some size, a centre of considerable caravan traffic, and is at present the capital of *Massina*, the most westerly of the Houssa States. But it consists only of mud-built houses, seldom more than one storey high, and is surrounded by a mud-wall, now fallen into decay. **Sego**, on the Joliba, the capital of *Bambarra*, is a town of some size. **Kano**, and **Kashna** (or Katsena), farther to the east—in *Houssa*, a tract of country lying between the Niger and Bornou—are also of some size, and the former is the seat of considerable commerce. **Sokoto**,¹ situated on an affluent of the Niger, is the capital of the kingdom of the same name, founded in 1816. Sokoto is at present the most powerful of the Houssa states, and is the centre of the Fellatah power. *Bornou*, on the west side of Lake Chad, is one of the most powerful and advanced of the Negro states, and its capital, **Kuka**, is a large and important commercial town. To the south of Bornou is the well-watered² and thickly-peopled province of *Adamawa*,³ which has been annexed to Sokoto. East of Lake Chad lie the kingdoms of *Beghermeh*, or Baghirmi, and *Wadai*. The warlike tribes of the former inhabit the valleys of Shari and its affluents. Their capital, **Massena**, however, was captured in 1872 by the Sultan of Wadai. The chief town of Wadai is **Warra** or Abeshir. *Kordofan*, the most easterly of the Soudan states, was wrested from the Sultan of Darfur by Mehemet Ali in 1820. In 1875 *Darfur* was also annexed to Egypt.

¹ Clapperton, the traveller, died here in 1827.

² By the Benue and its tributaries.

³ The capital of Adamawa is Yola.

WESTERN AFRICA.

The western coasts of Africa, within the tropics, are a distinct natural region, extending through a range of between three and four thousand miles along the Atlantic sea-board, from the borders of the Great Desert, in a northerly direction, to the latitude of Cape Frio, south of the equator.

NATURAL FEATURES.—This extended range of coast exhibits a succession of low plains, backed by high grounds at some distance inland. In some places, as at Sierra Leone, the high grounds advance to the coast and meet the waters of the Atlantic.

All the great rivers that are found on the western side of the African continent belong to this region, with the exception of the Orange. The chief of them are the *Senegal*, *Gambia*, *Rio Grande*, and *Niger*, all to the north of the equator; the *Congo* partly, and *Coanza* entirely, south of the line. But a vast number of smaller streams, with numerous creeks and saltwater estuaries, occur throughout the entire range of coast.

CLIMATE.—Owing to its position and numerous rivers and streams, Western Africa is characterised by a most redundant vegetation and unhealthy climate. The intense heat of a tropical sun, acting on the mass of vegetable matter, occasions the malaria and deadly fevers which are so commonly fatal to Europeans in this part of the world.

INHABITANTS.—The native inhabitants of Western Africa are throughout of *Negro* race. A few *Europeans* are settled amongst them at various points.

The Negro population is divided, as in the interior of Soudan, into numerous petty kingdoms, at frequent war with one another, and the slave-trade (though of limited prevalence now compared to its former condition) is the great bar to progress in the arts of industry and to social improvement. Yet the Negro possesses undoubted capacities for improvement; and the light-hearted gaiety of manner, which is one of his most striking attributes, is accompanied by depth of feeling, tenderness, and strength of will.

PRODUCTIONS.—The commercial productions of Western Africa include—besides the characteristic *gold-dust*, *ivory*, and *ostrich feathers*—*palm-oil*, *bees'-wax*, and various *gums*. It is from the regions of the Senegal and Gambia, and the line of the Guinea coast, that these latter are chiefly obtained, and the traffic in them (at the hands of European traders, chiefly English and French) has become largely extended within recent years.

DIVISIONS.—Western Africa is divided, to the north of the equator, into *Senegambia* and *Guinea*; to the south of that line, into the regions known as *Loango*, *Congo*, *Angola*, and *Benguela*.

SENEGAMBIA (as the name implies) is the region watered by the rivers Senegal and Gambia, and may be said to extend as far as the promontory of Cape Mount, at which the coast of Guinea begins. Particular portions of the shores of **Guinea** were formerly known as the Grain Coast, the Ivory Coast, the Gold Coast, and the Slave Coast, but only the third of these terms is employed in the present day.

Three among the native states in this part of Africa are superior to the

others in importance: these are Ashantee, Dahomey, and Yarriba—the two former bordering on the Gulf of Guinea, the last-mentioned a short distance inland. The chief town of Ashantee is **Coomassie**; ¹ that of Dahomey is called **Abomey**. The chief place in Yarriba is **Abbeokouta**, a centre of missionary enterprise. **Badagry** and **Bonny** are among the chief trading-ports on this line of coast.

LIBERIA ² is the name of a settlement of free Negroes (consisting of individuals formerly slaves in the United States) on the coast to the westward of Cape Palmas.

This settlement has existed since the year 1820, and is a flourishing community, the inhabitants of which pursue agriculture, and export the produce of their fields. The government of Liberia is republican in form; the chief town is called **Monrovia**, in the immediate neighbourhood of a promontory called Cape Mesurado. There are similar but smaller settlements at various other points on the coast.

Great Britain, France, and Portugal have settlements upon the western coasts of the African continent. The former possessions of the Danes and the Dutch have been transferred to Britain.

1. The *British* possessions in this region embrace three distinct localities—the settlements on the Gambia, Sierra Leone, and the Gold Coast.

(1.) The British possessions on the river Gambia consist of **St. Mary's Island** and the town of **Bathurst**, at the mouth of the river; **Fort James**, on an island situated thirty miles above the mouth; and **Macarthy Island**, 250 miles up the river. The total population of these stations is between four and five thousand.

(2.) **Sierra Leone** is a peninsula situated about midway between the Gambia river and Cape Palmas. It was originally established (in 1787) as a place of refuge for liberated Negroes, who form the chief part of its population. The capital of the settlement is **Freetown**, on the estuary of the river Rokelle.

(3.) **Cape Coast Castle** is the principal of the British settlements on the Gold Coast. It lies a short distance west of the meridian of Greenwich, and consists of a strong fortress, with a native town immediately adjacent. Several other forts on the same line of coast—most of them in immediate proximity to Cape Coast Castle (both to the eastward and westward)—together with **Lagos**, situated considerably farther to the east (long. 3° 40' E. of Greenwich), also belong to Britain. **Lagos** has considerable trade. **El-Mina**, within a few miles of Cape Coast Castle, was the principal of the former Dutch possessions.

2. The *French* settlements in Western Africa are **Fort St. Louis** and other places situated near the mouth of the river Senegal, and the island of **Goree**, in the immediate neighbourhood of Cape Verde.

3. The *Portuguese* possess, to the north of the equator, only a few insignificant stations on the coast of Senegambia, in the neighbourhood of the Rio Grande, and forming a dependency of the Cape Verde Islands.

To the south of the equator the Portuguese influence is much more considerable, and they claim the sovereignty over an extensive line of coast. The two principal of the Portuguese provinces here are Angola and Benguela. The former contains the town of **St. Paul de Loanda**, which is the capital of the Portuguese possessions in Western Africa. Benguela contains the town of **St. Philip**. The other chief towns are **Mossamedes** and **Ambriz**.

¹ Coomassie was destroyed by the British in 1874. ² The total population of Liberia is estimated at 720,000, of whom only 19,000 are American Negroes, the rest being Kroos and other aboriginal inhabitants.

EASTERN AFRICA.

The *coasts* of Eastern Africa, from the neighbourhood of the equator southward to Delagoa Bay, exhibit features similar to those that distinguish the opposite side of the continent. Low *plains* stretch along the coast, and are backed by high grounds towards the interior. Numerous *rivers* occur throughout the entire region, and many of them appear to derive their water from large *lakes* situated within the plains of the interior. The *climate* of the lowlands is intensely hot and unhealthy; as the country rises towards the interior the heat becomes much more moderate. A fertile soil and a luxuriant vegetation distinguish this region throughout; but the *population* consists chiefly of Negro races, who are sunk in almost the lowest condition of barbarism, and amongst whom the horrors of the slave-trade still prevail. The commercial *productions*, besides slaves, include gold-dust, ivory, gums, bees'-wax, and ostrich feathers, but the total amount of the trade is inconsiderable.

DIVISIONS.—Three foreign powers—the British, Portuguese, and the Arabs—exercise sway over this portion of the African continent. To the British now belong the Delagoa Bay district.¹ The Portuguese possessions reach from Delagoa Bay northward to Cape Delgado. The line of coast which extends between the last-named headland and the equator belongs to the Sultan of Zanzibar.

1. The Portuguese territories include the provinces of Sofala and Mozambique, with the lower course of the great river Zambesi. The town of **Sena**, situated on the Zambesi, is the seat of Portuguese government in this part of the world. The towns of **Mozambique**, **Quillimane**, **Sofala**, and **Inhamitane** are on the coast, and possess a limited amount of commerce, chiefly with Lisbon. The tract of country through which the Zambesi flows—known to Europeans through the researches of Dr. Livingstone and other explorers—is described as possessing great natural capabilities.

2. The coast district lying north of Cape Delgado formed until the year 1856 a dependency of Muscat in Arabia; but the town of **Zanzibar**, situated on the island of that name, was then made the capital of a distinct sovereignty, under a Sultan of Arab race, and whose influence reaches over the maritime border of the mainland. **Quiloa**, to the southward, and **Mombas**, some degrees to the north of Zanzibar, are also places of some trade.

To the north of the equator, and reaching thence to the neighbourhood of Cape Guardafui, is the coast of **Ajan**, the native inhabitants of which are a people called the *Somali*, of pastoral habits. Westward from this region, towards Abyssinia, they become intermixed with various races, among whom the *Gallas* are predominant. Little is known of this region, which seems to be divided into numerous petty states. One of these (lying in the direction of south-west from the upper part of the Gulf of Aden) bears the name of **Harrar**, from its chief town, which is an important centre of trade. Harrar was occupied by the Egyptian troops in 1875. The whole of this tract of country is visited, for commercial purposes, by traders from the coast of Arabia. Ivory, gums, myrrh, and ostrich feathers, with hides, sheep, and horned cattle, are among the produce which it supplies.

¹ By the recent (March 1881) "Lorenzo Marquez Treaty," Portugal ceded the town and district of Lorenzo Marquez, on Delagoa

Bay, to Great Britain. Delagoa Bay is a splendid natural harbour, and forms the natural outlet of the Transvaal territory.

QUESTIONS ON NEGRO AFRICA.

1. What three divisions does Negro Africa embrace?
2. Point out upon the map the limits which mark out the plain of Central Soudan.
3. What are the chief natural features of Central Africa? Name its rivers, and the great lakes which it includes.
4. What kind of climate has this region?
5. What race of people are intermingled with the Negro population of this region? What mode of worship do they follow?
6. What are the habits of life among the Negro people of this part of the world? What constitutes the chief obstacle to their improvement?
7. Name the chief commercial productions of this region.
8. Mention some of the principal towns in this part of Africa.
9. What are the chief natural features of the western coast-region of Africa?
10. What kind of climate has Western Africa?
11. Say what you know concerning the condition of the inhabitants of this region.
12. What commercial productions belong to Western Africa? By what nations is its trade chiefly carried on?
13. What two divisions does Western Africa embrace to the northward of the equator? What four divisions to the south of that line?
14. Where are Ashantee and Dahomey? What is the chief town of each. Point out their localities on the map.
15. Where are Badagry, Lagos, Bonny, and Abbeokuta?
16. Where is Liberia, and what is the name of its chief town?
17. What European nations possess settlements on the coasts of Western Africa?
18. Name and point out on the map the British settlements in this region.
19. Name and point out the French settlements.
20. What parts of Western Africa are subject to the Portuguese?
21. Say what you know concerning the climate and commercial productions of the eastern coasts of Africa.
22. What two foreign powers rule over the chief part of Eastern Africa? Point to the respective localities subject to each.
23. Point on the map to the towns of Mozambique, Quillimane, Sena, Quiloa, and Zanzibar.
24. In what part of Eastern Africa are the people called Somauli found? What are the commercial productions of that region?

SOUTHERN AFRICA.

The southern extremity of the African continent comprehends two distinct and extensive provinces under British rule—namely, the *Cape Colony* and *Natal*; and two independent Dutch republics, known as the *Transvaal*¹ and the *Orange Free State*, together with the semi-independent native state of Zululand.

I. THE CAPE COLONY.

The Cape Colony² derives its distinguishing name from the Cape of Good Hope. It includes that part of Africa which is to the south of the Orange river, and which extends thence to the Atlantic and Southern oceans.

It was not until the year 1847 that the northern frontier of the Cape Colony was extended to the Orange river, an artificial line, drawn considerably to the southward of that stream, having previously marked its limit. The area of country under British rule was gradually enlarged by the annexation of British Kaffraria in 1866, Basutoland in 1868, Griqualand East in 1875, Griqualand West in 1876, and subsequently the greater portion of the "Transkei;" so that Natal and the Cape Colony are now conterminous, the boundary being the river *Umtamfuna*. The extensive districts of Namaqua and Damara Land, north of the Orange river, on the west coast, were also formally annexed in 1878.

¹ The Transvaal is not yet (June 1881) actually independent. (See page 282.)

² The first settlement was formed by the Dutch in 1652 in the immediate neighbourhood of Table Mountain. The colonists gradually pushed inland to the Great Fish

river on the east, and the Roggeveld range on the north. In 1795 the colony was taken by the British, but was given back in 1803 at the peace of Amiens. Three years later it was again taken by the British, and has since remained British territory.

EXTENT.—The area of the Cape Colony, including Basutoland and the Transkei, is about 220,000 square miles, which is equal to four times the size of England and Wales.

The *extreme length*, from east to west, is 770 miles.

The *greatest breadth*, from north to south, is 490 miles.

COASTS.—Of the same regular and unbroken character as those of the African continent generally, and embracing but few harbours, although it is upwards of 1300 miles in length.

1. **CAPIES.**—*Cape Agulhas* and the *Cape of Good Hope*—the two most important headlands of South Africa—are both within the coast-line of the Cape Colony. The former is the most southerly point of the African continent and of the Old World.

The *Cape of Good Hope* is important, both from its geographical position and from its place in the annals of discovery. It was discovered by Bartholomew Diaz, a Portuguese navigator (in 1487), towards the close of a century which had been devoted by the Portuguese to the prosecution of maritime discovery along the western side of the African continent. Diaz succeeded in doubling the Cape in this voyage, and landed on the coast at some distance beyond. This feat was justly regarded as preparing the way for a passage to India by a maritime route.¹ Ten years later, in 1497, Vasco di Gama (also a Portuguese) conducted the first fleet of ships to India by way of the Atlantic and Indian oceans, passing, of course, round this famous headland.

2. **INLETS.**—St. Helena, Saldanha, and Table Bays on the west; False Bay (with Simon's Bay), Mossel and Algoa Bays, on the south.

(1.) Of the above inlets Saldanha Bay forms permanently the best harbour. Table Bay is somewhat unsafe during the north-west winds. Simon's Bay is well sheltered and commodious, and is the principal South African station of the British fleet.

(2.) *Table Bay* is so named from its vicinity to Table Mountain—an elongated mass of hill, with a flat top, which rises above its southern shore, and in the immediate vicinity of Cape Town. Table Mountain reaches 3582 feet in height.

SURFACE.—The southern half of the Cape Colony includes a series of plains, which stretch in the general direction of east and west, parallel to the southern shore of the African continent, and are divided from one another by successive chains of hills. These parallel hill-ranges increase in altitude towards the interior, and reach their culminating height in the chain of the *Nieuveld Mountains*, the loftiest elevations in Southern Africa. The highest portions of the Nieuveld (or the Sneeuberg,² as they are called) attain an elevation of 8000 feet above the sea.

The plain that extends along the southern base of the Nieuveld Mountains is called the *Great Karroo*, and has an arid and gravelly surface. The lower plains, nearer the coast, are watered and moderately fertile. The northerly portion of the province, between the chain of the Nieuveld and the course of the river Orange, consists chiefly of extensive open plains, for the most part scantily watered.

¹ Diaz had called this long-sought headland (which he erroneously believed to be the extreme south point of the African continent) by the name of "El Cabo Tormen-

toso"—or the Stormy Cape. The king of Portugal, on his return, changed this name to that which it has ever since borne.

² Highest point, *Compassberg*, 7400 feet.

RIVERS.—The principal rivers are the Orange or Gariep, and the Oliphant or Elephant, flowing into the Atlantic; and the Breede, Gauritz, Gamtoos, Great Fish,¹ Keiskamma, and the Kei, flowing into the Indian Ocean.

The **Orange River**, which forms the northern border of the Cape Colony, is more than 1000 miles long, but it has comparatively little volume of water, and is not navigable. Of the other rivers of the colony none are considerable streams, and their volume of water varies greatly with the season of the year.

CLIMATE.—The climate of the Cape is temperate, dry, and healthy. The occasional prevalence of droughts is its chief drawback. In the eastern province rain falls in summer, but in the western in winter.

PRODUCTIONS.—The extensive open plains of the interior are, however, admirably suited for pastoral pursuits; and the abundance of livestock reared upon them supply, in the present day, the most valuable produce of the colony. The wool of the Cape sheep is exported in large quantity to England.

INHABITANTS.—The population of Cape Colony proper numbers 720,000, of whom about 236,000 are Europeans or whites, and 484,000 Kaffirs, Hottentots, and Malays.

A large number of the white population are of British descent, but the majority are of Dutch origin, owing to the fact that the colony was originally established by the Dutch nation, and only came into the possession of Britain in the early part of the present century. The coloured population comprehends *Hottentots* and *Kaffirs*—the two native races of this portion of the African continent. The pure Hottentots are now few in number; the people of the Kaffir race are much more numerous, and perhaps amount to a third of the entire population of the province. Of the other races the *Malays* are the most numerous.

INDUSTRY.—The chief pursuit of the settlers at the Cape is sheep and cattle farming, for which the province is generally better suited than for agricultural operations. A great quantity of *wool* is annually exported to England, with *hides*, *skins*, and *tallow* to a less amount. The culture of the soil is, however, carried to a considerable extent, and good *corn* is grown. The vine (introduced thither from Europe) is cultivated on a scale of some magnitude in the western division of the province, but the wines of South Africa have not generally attained a high place in the market.

Commerce.—Considerable commercial intercourse is maintained by the traders of the Cape with India, China, and the island of Mauritius, as well as directly with Britain.

Diamonds, wool, copper ore, hides, ivory, and ostrich feathers form the principal articles of export. The total *exports* in 1879 amounted to £7,500,000 and the *imports* to £7,080,000. The total value of the *direct trade* with the United Kingdom in the same year was upwards of £9,000,000.

Ports.—Cape Town, Port Elizabeth, and East London.

Internal communication.—The roads are generally good in the more settled districts. In the interior they are mere tracks. *Railways* are now being rapidly extended. In June 1880 there were 905 miles open for traffic. About 400 miles belonged to the Western system, starting from Cape Town; 400 to the Midland and North Eastern, starting from Port Elizabeth; and 100 to the Border system, starting from East London.

¹ There is another Great Fish river, a tributary of the Orange.

GOVERNMENT.—The entire colony of the Cape is under the administration of a Governor appointed by the British Crown. The legislative power is vested in the Colonial Parliament.

Finance.—Estimated *Revenue* (1880), £2,500,000; *Expenditure*, £2,350,000. In 1869 the revenue only amounted to £593,000, and the expenditure to £648,000. The *Public Debt* of the colony has risen from £80,000 in 1859 to £10,500,000 in 1879.

DIVISIONS.—Cape Colony proper is usually divided into two great divisions—an eastern and a western. The latter is the older-settled and more populous portion of the territory.

1. The chief place in the western division of the Cape Colony is **Cape Town** (*population*, 28,000), which is the capital of the province. Cape Town derives its name from the famous promontory to which it is adjacent. It stands on the shores of Table Bay, in the south-west corner of the province, and has about 25,000 inhabitants. It was originally laid out by the Dutch, and presents in general appearance a great resemblance to the towns in Holland.

2. The principal place in the eastern division of the province is **Graham's Town**, situated a short distance from the south-eastern coast-line, in the neighbourhood of the Great Fish river. **Port Elizabeth**, on the shore of Algoa Bay, is the chief place of shipment for this part of the Cape territory. The tract of country lying between the Keiskamma and Great Kei rivers (first brought under British rule in 1847) is distinguished as British Kaffraria, and was annexed to the Cape Colony in 1866. The chief place within the territory is **King William's Town**, which is now connected by rail with its port of **East London**.

GRIQUALAND WEST is chiefly famous for its valuable *diamond* mines. It was proclaimed British territory in 1871, and formed a distinct colony until 1876, when it was annexed to the Cape Colony. The administrator resides at *Kimberley*, the capital.

BASUTOLAND, a mountainous region drained by the headwaters of the Orange river, was declared British territory in 1868, and formally annexed to the Cape Colony in 1871. The recent (1880-81) war (caused by the colonial authorities attempting to enforce the Disarmament Act) is now over, the insurgent chiefs having made their submission. South of Basutoland are the native districts of *Griqualand East* and the *Transkei*, also attached to the Cape Colony.

II. NATAL.

The colony of Natal¹ includes the territory lying between the Tugela river on the north and the Umtamfuna on the south, and extending inland from the coast to the Drakenberg, which separates it from the Basutoland and the Orange River Free State.

EXTENT.—Natal has an estimated area of 18,750 square miles,² with a sea-board of about 175 miles. The distance from the coast to the Drakenberg varies from 80 to 120 miles.

NATURAL FEATURES.—The coast-district of Natal consists of a low plain. This rises gradually towards the interior, attaining an elevation of 1000 feet and upwards in the central and westerly divisions of the province. The average height of the Drakenberg is between 5000 and 6000 feet, but some of its summits attain an elevation of 10,000 feet above the sea. The province is nearly throughout

¹ Natal coast was discovered by Vasco di Gama on Christmas-day 1497, hence its name.

² About one-fourth that of England and Wales

well watered. The *Tugela*¹ is the longest of its rivers, all of which discharge into the Indian Ocean.

PRODUCTIONS.—The climate of Natal is warmer than that of the Cape, and its productions are in many respects different. Within the low districts that adjoin the coast, the vegetation makes near approach to the tropical character. The sugar-cane grows wild, and the cotton-plant is capable of profitable culture. The pine-apple and the fruits of southern Europe flourish. The higher plains of the interior are adapted to the growth of wheat and other cereals of the Temperate Zone. The principal mineral productions are coal and lime, neither of which are as yet properly worked.

INHABITANTS.—The inhabitants of Natal—about 325,000 in number—are principally Kaffirs, belonging to that variety of the Kaffir race distinguished as Zulus. The colonial or white population is of British, Dutch, and German descent, and in 1877 numbered 22,000.

INDUSTRY.—The occupations of the Kaffirs are almost exclusively pastoral. Since the province was recognised as a British possession a large portion of the land, especially along the coast, has been brought under cultivation. *Sugar, coffee, and arrowroot* are produced on the coast lands, *wheat and maize* are largely grown inland. *Cotton* thrives well, but the quantity exported has decreased within recent years. *Tobacco* is successfully cultivated. But the staple article of export from Natal is *wool*,² and sheep-farming is the principal industry, except along the coast.

GOVERNMENT.—Before 1856 Natal formed part of the Cape Colony. In that year it was erected into a distinct colony under first a lieutenant-governor, and since 1879 a governor, aided by an Executive and a Legislative Council.

1. Natal is divided for administrative purposes into nine counties, four of which—*Alfred, Alexandra, Durban, and Victoria*—are on the coast; the other five—*Pietermaritzburg, Umvoti, Weenen, Klip River, and Newcastle*—are inland.

2. The capital of Natal is *Pietermaritzburg* (population, 10,000), which is in the centre of the colony, about 60 miles inland. *Durban*, on the coast, on the north side of an inlet called Port Natal, is the principal port. *Durban* is now connected with the capital by rail.

III. THE ORANGE RIVER FREE STATE.

The ORANGE RIVER FREE STATE is bounded on the *north* by the Transvaal, on the *west* and *south* by Griqualand West and the Cape Colony, and on the *east* by Basutoland and Natal.

Except on the west the boundaries of the Free State are formed by natural features, such as the Vaal river, which divides it from the Transvaal, the Drakenberg from Natal, the Orange river from the Cape Colony, and its affluent, the Caledon river, from Basutoland.

EXTENT.—The area of the Free State is estimated at 42,470 square miles, little more than that of Ireland.

PHYSICAL FEATURES.—The northern portion of the country, enclosed by the Drakenberg and the Vaal rivers, is level, as are also the western districts. The south-eastern portion is undulating and, in part, hilly. Most of the *rivers* in the north and west flow into the Vaal, those in the south join the Orange.

INDUSTRY.—The inhabitants,³ who are mainly of Dutch descent, are mostly engaged in sheep-farming, and wool forms the principal article of export.

¹ Between Natal and Zululand.

² Value (1879) £502,539.

³ Estimated at 50,000, only half of whom are "Boers."

Among its mineral productions are diamonds and other precious stones. Ostrich-farming is also an important and lucrative industry. Nearly all the exportable produce of the state is carried over the Drakenberg and shipped from Durban, the waggons returning with manufactured goods and coast produce (sugar, coffee, &c.)

GOVERNMENT.—The government is republican in form—an elected president holding the executive, and the “Volkraad” the legislative, power. Bloemfontein is the seat of government.

1. For administrative purposes the state is divided into five districts,¹ viz., *Harriemith* and *Winburg* in the north, *Bloemfontein* as the centre, and *Fauresmith* and *Smithfield* in the south.

2. Like the Transvaal, the Orange River State was settled by discontented Dutch *Boers* or farmers, who emigrated thither from Natal when declared a British colony. The country, however, remained British territory until 1854, when the *Boers* were permitted to form an independent government.

IV. THE TRANSVAAL.

The TRANSVAAL comprises an extensive territory lying beyond the Vaal river, hence its name. To the north-west and north it is limited by the Limpopo or Crocodile river, while on the east it extends across the Quathlamba or Drakenberg range to the Lebombo Hills.

On the south, the Vaal river divides it from the Orange River Free State, and the Buffalo river from Natal. The Pongola river and the Lebombo Mountains form the natural boundaries between the Transvaal and Zululand and Amatonga country.

EXTENT.—The area of the Transvaal is estimated at 114,360 square miles, or about twice that of England and Wales.

PHYSICAL FEATURES.—Generally speaking, the Transvaal is an elevated plateau of an average height of 3000 feet, sloping west and north from the Drakenberg range to the Limpopo. The higher portion of the plateau is in the south, and forms what is known as the *Hooge Veldt* or high country. The *Hooge Veldt* has an average elevation of about 5000 feet, and is on the whole well fitted for grazing. North and east of the *Hooge Veldt* is the *Banken Veldt* or terrace country, which is hilly and well-watered. This portion of the country is well fitted for grazing, but also contains much arable land. Beyond it extends the sub-tropical *Bush Veldt* or bush country, which includes a broad belt enclosed by the Limpopo. The *Bush Veldt* is in some parts extremely unhealthy, and, being infested with the dreaded tsetse-fly, is not available for pastoral purposes.

INDUSTRY.—The *Boers* of the Transvaal are almost entirely engaged in pastoral pursuits. Immense numbers of sheep and cattle are reared, and *wool* and *hides* are largely exported. The country is also well adapted for the growth of cereals, but at present much flour is imported. Among the mineral productions are *gold*, in the north and east, and *diamonds* on the banks of the Vaal. *Copper*, *lead*, *iron*, *coal*, and *cobalt* are also known to exist, but are as yet unworked. In fact, the industries of the Transvaal and the adjoining countries are paralysed by the want of ready communication with the coast. There are no made roads, and the cost of transport is everywhere excessively high. The completion of the railway system of Natal to the Transvaal frontier would doubtless facilitate trade, but the natural outlet of the country is Delagoa Bay.²

INHABITANTS.—The population of the Transvaal is estimated at about 500,000,³ of whom only 50,000 are whites, mainly of Dutch descent (*Boers*). The natives belong to several varieties of the Kaffir race—Zulus, Bechuanas, Makatees, and Basutos.

¹ Named after the chief town (or rather village) in each district. Bloemfontein, the capital, has only 1000 inhabitants.

² The Delagoa Bay District now belongs to Great Britain. See footnote, page 275.

³ An average of 4 per square mile.

DIVISIONS and TOWNS.—The Transvaal is divided, for administrative purposes, into thirteen districts, which are named after their chief towns or villages. *Pretoria* is the capital, but *Potchefstroom* is the largest town.

GOVERNMENT.—The Transvaal, like the adjoining Free State, was settled by emigrant Boers from the Cape Colony and Natal. A republican form of government was established, and for some years the colony made good progress. In 1876, however, serious troubles with the natives so disorganised the Boer government that the British Commissioner, fearing a general rising of the natives, annexed the country (April 12, 1877). The Boers protested against the annexation, and even sent a deputation to England, but with no effect. The dislike of the Boers to British rule at length culminated in a general rising, and in December 1880 a strong force of Boers attacked and defeated a detachment of British troops near Middleburg. The Boers then proclaimed their independence and prepared to enforce their demands by force of arms. The British troops stationed at the various towns were surrounded and communications with Natal broken off. Sir George Colley, the governor of Natal, determined to relieve the besieged garrisons, and, with a small force, advanced (January 28, 1881) against the main body of the Boers, who held a naturally strong position at Laing's Neck. The British were repulsed, and retired to their fortified camp at Mount Prospect. On February 8, General Colley crossed the Ingogo with a detachment in order to disperse a body of the enemy who had got between the camp and Newcastle, but was again repulsed with great loss. But the greatest disaster occurred on February 27, when General Colley, having resolved to occupy a hill overlooking the Boer camp, left Mount Prospect with about 600 men. During the night the hill was scaled unobserved by the enemy, and at daybreak the British held an apparently impregnable position. The Boers, however, charged up the hill repeatedly, and eventually succeeded in taking it. The British lost 300 men, including General Colley. Shortly after hostilities were suspended and terms of peace signed; final arrangements being left to a Royal Commission, which recently left Newcastle for the Transvaal. Whether the re-establishment of the republic will be quietly effected seems at present improbable, as not only are the loyal Boers and British colonists dissatisfied, but the natives throughout the Transvaal are averse to Boer dominion, and are already assuming a hostile attitude.

V. ZULULAND.

ZULULAND is bounded on the *east* by the Indian Ocean, and on the *west* and *south* by the Transvaal and Natal. Its area is estimated at about 15,000 square miles, with a population of 300,000.¹

The northern part of the coast is indented by a large but shallow inlet, known as *St. Lucia Bay*. Between Zululand and the Transvaal are the *Lebombo Mountains*, the upper *Pongola*, and *Blood River*, while the *Tugela* forms the boundary on the Natal side. Of the numerous streams within the country, the largest is the *Umvolzi* (formed by the junction of the Black and White Umvolzi), which enters the sea near the outlet of *St. Lucia Bay*.

¹ Before the recent war the form of government was a strict military despotism, every adult male being compelled to serve in the army, which in 1879 was estimated to consist of at least 40,000 men. Since the occupation and settlement of Natal and the Transvaal by the Boers, the Zulus regarded them with no friendly feelings, and during the dispute relative to the boundary-line, the Zulu king, Cetwayo, assumed a decidedly hostile attitude. A rupture with the Boer government of the Transvaal, however, was forestalled by the prompt annexation of the country by the British commissioner. In 1878 some Zulus made a raid into Natal, and on the refusal of Cetwayo to accede to the demands of the commissioner, war was declared, Jan. 1879. The British forces crossed the border in three

columns. One division of the upper column was surprised and annihilated by an overwhelming Zulu force at *Isandula* (Jan. 22); the garrison at *Rorke's Drift*, however, gallantly held their post. At the same time a portion of the lower column was surrounded at *Ekono*, but held out until relieved. The Zulus attacked the relieving force at *Ghazikovo* (April 2), but were defeated. The British forces then marched on *Ulundi*, where they gained a brilliant victory—the Zulu army being completely routed. The capture of Cetwayo (Aug. 28) put an end to the war; and the formidable military organisation of the Zulus being entirely broken up, the country was parcelled out among a number of chiefs, who are under the control of a British Resident.

ISLANDS OF AFRICA.

The smaller islands that belong to this division of the globe are for the most part in the possession of various European powers. Spain, Portugal, Great Britain, and France are the nations by which these sovereignties are possessed.

1. To *Spain* belong the Canary Islands and the island of Fernando Po.
2. To *Portugal* belong Madeira and the Cape Verde Islands; with Prince's Island and St. Thomas, in the Gulf of Guinea. The Island of Annabon, also in the Gulf of Guinea, is claimed by the governments both of Spain and Portugal.
3. To *Great Britain* belong Ascension, St. Helena, Tristan d'Acunha, Mauritius, Roderigue, the Seychelle Islands, the Amirante Islands and Socotra.
4. To *France* belong the Island of Bourbon or Réunion, and a few small stations on the coast of Madagascar.
5. The African Islands that are independent of European rule are Madagascar and the Comoro Islands.

The **CANARY ISLANDS** are an integral part of the Spanish monarchy, and form one of the modern provinces into which Spain has been divided. They comprehend seven principal islands, with several smaller islets, the nearest of the group lying about 60 miles distant from the African mainland. The largest of the number is *Teneriffe*, the second in size is *Grand Canary*, the third *Fortaventura*, and the fourth *Lanzarote*. The island of *Ferro*, the most westerly member of the group, is remarkable from its having been long regarded by the ancients as the extreme westward point of the habitable globe, and its being hence selected as the initial point whence to measure longitude. The meridian of Ferro is still used by several nations for this purpose.

All the islands of the Canary group are mountainous and of volcanic formation. The peak of Teneriffe rises to the great altitude of 12,236 feet. They are for the most part fertile, watered, and productive islands, enjoying a warm and healthy climate. Corn, dates, figs, lemons, the vine, sugar, tobacco, cochineal, and barilla are among their productions. The population (about 227,000) is wholly of Spanish descent. The chief towns are *Santa Cruz*, on the island of Teneriffe, and *Palmas*, on Grand Canary.

FERNANDO PO is the largest of the four islands situated towards the upper extremity of the Gulf of Guinea. It is fertile, but unhealthy, and the settlements which have been made upon it have hence been, in more than one instance, abandoned.

Clarence Peak, the highest point of Fernando Po, rises to upwards of 10,000 feet. The inhabitants of Fernando Po are chiefly natives, but there are a few European settlers, together with about 1000 liberated Negroes in the town of *Clarence*, the chief place on the island.

The **CAPE VERDE ISLANDS** are an extensive group, situated 340 miles to the west of Cape Verde. They are 10 in number, the largest of them, Santiago, having an area of 400 square miles. The island of Fogo, one of the number, is an active volcano, and reaches upwards of 9000 feet in height.

The Cape Verde Islands are less fertile than either Madeira or the Canary group, and they are indifferently provided with water. Some *cotton*, however, is grown upon them, and also the *sugar-cane*, with oranges and other fruits. *Salt* is one of their chief articles of produce. The population of the entire group numbers about 85,000. The principal towns are **Mindello**, on the island of St. Vincent, and **Porto Praya**, on the island of Santiago.

MADEIRA has been already described (see page 167).

PRINCES' ISLAND and **ST. THOMAS** are inhabited chiefly by a native race, among whom are a few Portuguese settlers. They produce little beyond livestock and vegetables. The former island contains the town of **San Antonio**.

ANNABON (which is claimed both by Spain and Portugal) contains also a small native population, and furnishes a similar produce to the two last-named islands.

The island of **ASCENSION**¹ is nearly 1000 miles distant from Cape Palmas, the nearest point of the African mainland. It is only 34 square miles in size, and consists of a mass of volcanic rock, rising to 2870 feet above the sea.

Turtle, wild goats, and a few sheep and cattle constitute its produce. It is used as a station for the British cruisers engaged in the suppression of the slave-trade. **Georgetown**, on the north-west coast of the island, is the residence of a few British settlers, who, with the garrison, are its only inhabitants.

ST. HELENA² is 800 miles distant from Ascension, and 1200 miles from the nearest point of the African mainland. The whole island is a huge mass of rock, of volcanic origin, rising steeply out of the waters of the Atlantic, and reaching in its highest point 2700 feet above the sea.

1. St. Helena is 47 square miles in area. The exterior of the island forms a perpendicular wall of cliff, the principal opening in which is on the north-western coast, where **Jamestown**, the capital, is situated. The interior exhibits a succession of hills and valleys, some of the latter very fertile. The climate is warm, but the position of St. Helena, in the midst of a vast ocean, preserves it from the intense heats of the Torrid Zone. Fruits and vegetables constitute the chief produce of the island. The population numbers about 7000.

2. The chief interest attaching to St. Helena is derived from the fact of its having been, during the last six years of his life, the place of exile of Napoleon the Great, who died there in 1821. His body was removed to Paris in 1840.

TRISTAN D'ACUNHA³ is the largest of a group of three islands, lying west by south of the Cape of Good Hope, at a distance of nearly 2000 miles. It is a barren volcanic rock, the highest point of which reaches 6400 feet above the sea. There were formerly a few residents on Tristan d'Acunha, but all the islands of the group are uninhabited.

¹ Ascension was discovered by the Portuguese on Ascension Day, 1501, hence its name. It was occupied by the British in 1815. The population, chiefly royal marines, is about 500.

² St. Helena was discovered by the Portuguese in 1502, on St. Helena's Day, hence its name. The English took possession of it in 1661.

³ Discovered in 1502.

MAURITIUS,¹ situated in the Indian Ocean, is a beautiful and fertile island, of larger size than any of the other possessions of Britain in the African seas. It has an area of 676 square miles—a magnitude about three times greater than that of the Isle of Man.

1. The surface of Mauritius consists of alternate hills and valleys, the highest portions of the island reaching nearly 3000 feet. The inhabitants, who number 350,000, are largely engaged in the culture of the sugar-cane, which forms the staple product of the island. Coffee, cotton, indigo, and rice are also grown. Though within the Torrid Zone, the climate of Mauritius is healthy, and the heat not excessive. The greater part of the population² consists of coloured races (chiefly Hindu); the majority of the white inhabitants are of French origin, as the island had belonged to France before it came into the possession of Britain, in the year 1810.

2. Mauritius is surrounded by coral reefs, in which only two openings occur. At one of these openings, on the north-west coast of the island, is the town of **Port Louis** (population, 65,000), its capital. **Mahebourg** or Grand Port, the only other large town, is on the opposite side of the island.

3. The detached islands of **Rodrigue** and **Diego Garcia**, 300 miles east of Mauritius, are dependencies of that island.

The **SEYCHELLE ISLANDS**, and also the **Amirante** group, both of them lying far to the northward, are dependencies of Mauritius. The Seychelles, though composed of granite rock, rest upon a bank of coral, and the **Amirante** Islands are altogether of coral formation. Some cotton is grown on these groups, and the cocoa-nut palm abounds.

SOCOTRA is an island of considerable size, to the east of Cape Guardafui. It is covered with rocky and generally sterile hills, yielding little produce beyond aloes and a few dates, with the resinous substance known as dragon's blood—the produce of a tree from the trunk of which it exudes.

The inhabitants are chiefly of Arab race, and the sovereignty of the island formerly belonged to the Sultan of Keshim, on the opposite coast of Arabia. By the treaty of 1876, the Sultan virtually ceded the island to Great Britain. Its position at the entrance of the Gulf of Aden, on the direct route to India, and consequent importance in case of war, fully justified its occupation by the Indian Government in 1878.

The island of **BOURBON**—or Réunion, as it is now officially designated—is to the south-west of Mauritius. It is about one-third part larger than that island.

Bourbon contains two lofty volcanic mountains (one of them in frequent activity), and the whole island is of volcanic origin. The level tracts which stretch round the coast are very fertile, and Bourbon has a healthy climate. The population numbers upwards of 250,000. Sugar, cloves, and coffee are the chief articles of produce. The chief town is called **St. Denis**.

MADAGASCAR, the largest of African islands, measures 1000 miles in length, and has an area of 200,000 square miles—about four times the magnitude of England. It is crossed by the line of the southern tropic, but is principally within the Torrid Zone.

¹ Mauritius was discovered in 1505 by the Portuguese, but was first settled in 1598 by the Dutch, who called it Mauritius, in honour of their Prince Maurice. Being abandoned by the Dutch in 1712, it was

taken by the French, who held it until 1810, when it was captured by the English. In 1874 a terrific hurricane, which lasted four days, caused great damage.

² Population (1880) 351,000.

1. Madagascar has a chain of high mountains running through it, and the whole interior forms an elevated plateau. A belt of low land extends round the coast, and forms an extremely unhealthy (though fertile) region. The whole island is believed to possess great fertility, and abounds in rich natural produce—mineral as well as vegetable.

2. The native population of Madagascar (called the Malagasy) is believed to amount to four or five millions. They are a distinct race from the Negro inhabitants of the neighbouring mainland, and are allied to the Malay family of mankind. The whole island is under the sovereignty of the Hovas, as the tribes dwelling in its most central province are called. The French possess a small settlement upon *St. Mary's Island* (off the eastern coast, to the south of Antongil Bay), and another on the island of *Nos Be* (off the north-western coast). The native capital of Madagascar is the town of *Tananarivo*, in the middle of the island. *Tamtave* is the chief port.¹

3. Commercial and social intercourse with Madagascar, after a long interval of suspension, has been renewed within recent years. Christianity is now the established religion in the island. Printing has been introduced by the missionaries, and there are numerous schools in various parts.

The **COMORO ISLANDS** are situated in the north part of the Mozambique Channel, which divides Madagascar from the African mainland. They are four in number—the largest of them called Comoro—and form a native sovereignty, under a sultan of Arabic descent.

QUESTIONS ON SOUTHERN AFRICA AND THE AFRICAN ISLANDS.

1. What colonies does Great Britain possess in Southern Africa?

2. What are the boundaries and natural features of the Cape Colony?

3. Name some of the principal rivers of the Cape Colony.

4. By what is Cape Agulhas distinguished?

5. By whom was the Cape of Good Hope discovered, and in what year?

6. Say what you know concerning the climate and productions of the Cape Colony.

7. What races of people are found in the Cape Colony?

8. What are the chief pursuits of the settlers at the Cape?

9. Name the chief towns of the Cape Colony.

10. What famous mountain is in the vicinity of Cape Town?

11. Which part of the province is known as British Kaffraria, and what is the name of its chief town?

12. Point on the map to the province of Natal, and say what you know concerning its natural features and climate.

13. What race of people constitutes the chief population of Natal?

14. Name the principal town, and also the chief seaport, of Natal.

15. What other territories (besides the

Cape Colony and Natal) are included within Southern Africa?

16. State what you know of the Orange River Free State.

17. Describe briefly the natural features and productions of the Transvaal. Mention the leading events in the recent war.

18. Give some account of the war in Zululand.

19. Among the islands of Africa which belong (1) to Spain, (2) to Portugal, (3) to Great Britain, (4) to France?

20. Point to the following upon the map:—Teneriffe, Madeira, Fernando Po, Ascension, St. Helena, Tristan d'Acunha, Mauritius, the Seychelle Islands, and Socotra.

21. Name the chief towns of each of the following islands:—Madeira, St. Helena, Mauritius, and Bourbon.

22. For what is the island of Madeira distinguished?

23. What event distinguishes, historically, the island of St. Helena?

24. What constitutes the chief produce of Mauritius?

25. Where is the island of Socotra? What articles of produce does it furnish?

26. What kind of natural features does the island of Bourbon exhibit?

27. Give some account of Madagascar.

28. Where are the Comoro Islands?

¹ The British have recently (May 1881) taken possession of a headland in Madagas-

car opposite Mazanga, and thus command the trade between Mazanga and Tamtave.

AMERICA.

AMERICA, or the New World, extends north and south between the Atlantic and Pacific Oceans from the 80° N. to 55° S. lat., a distance of more than 9000 miles. The extreme points of the mainland are *Murchison Peninsula* (72° N. lat.) on the north, and *Cape Froward* (53° 54' S. lat.) on the south; *Cape Branco* (34° 50' W. long.) on the east, and *Cape Prince of Wales* (168° W. long.) on the west. The width of the American continent varies exceedingly, being 3100 miles under the 45th parallel, N. lat., 3200 miles under the 5th parallel S. lat., while the intermediate isthmus is at one part only 28 miles across. To the north the land stretches east and west along the 70th parallel for 2500 miles, exclusive of Greenland, while to the south it rapidly decreases in width, and terminates in a group of islands. Compared with the Old World, the greatest dimensions of America are from north to south, while those of the Old World are from east to west, and thus no part of the former is so distant from the sea as are the central districts of the latter. America also, notwithstanding its immense area, has no vast deserts like those which render so large a portion of the eastern continent barren and uninhabitable; and further, the almost unbroken continuity of the great ranges which skirt the eastern shores of America has no parallel in the Old World.

This Western Continent, as it is sometimes called, comprehends two great divisions, called *North and South America*. These are united by the Isthmus of Panama, which is less than 30 miles across in its narrowest part. Each of these divisions is continental in point of magnitude, North America having an area of 8,600,000 square miles, and South America 7,000,000 square miles, while the total length of the coast-line of both divisions is not far short of 40,000 miles.

NORTH AMERICA.

NORTH AMERICA is the northern division of the Western Continent, or the New World, and is much larger and far more important than South America, to which it is united by the narrow Isthmus of Panama.

BOUNDARIES.—North America is bounded on the *north* by the Arctic Ocean, on the *east* by the Atlantic Ocean, and on the *west* by the Pacific Ocean. To the *south* it passes (below the 30th parallel) into a narrow region, within which are embraced Mexico and the states of Central America, and finally terminates in the Isthmus of Panama.

North America differs in *shape* from any of the continents of the Old World. Its greatest dimensions are from north to south, and it is of narrow proportions comparatively to its total magnitude. The vast oceans upon either side hence exercise a greater share of influence over its climate.

EXTENT.—The superficial extent of North America is estimated at 8,600,000 square miles, which is considerably more than double the size of Europe, but hardly equal to half that of Asia.

The *greatest length*, from north to south, is 4500 miles; and its *greatest breadth*, under the line of the 45th parallel N. lat., is 3700 miles.

COASTS.—The eastern coasts of North America are more indented than the western. They make, in variety of outline, nearer approach to the characteristic feature of the European continent than is the case with either of the other divisions of the globe.

The *coast-line* is estimated at 24,500 miles, equivalent to 1 mile of coast to every 350 square miles of surface, a proportion of coast-line to surface of about half that of Europe, but more than twice that of Africa.

1. **INLETS.**—The principal inlets on the coasts of North America are:—On the *east*, Baffin Bay, Hudson Bay, Gulf of St. Lawrence, Bay of Fundy, Gulf of Mexico, and Caribbean Sea.

On the *west*, the Gulf of California, which is an arm of the Pacific.

On the *north*, the Gulf of Boothia, which is an arm of the Arctic Ocean.

(1.) **Baffin Bay** (so called from William Baffin, who explored it in 1616) lies between Greenland and the North American Archipelago, and is upwards of 300 miles long. It communicates with the Atlantic by Davis Strait and with the recently-discovered Palæocrystic Sea to the north, by Smith Sound, Kennedy Channel, and Robeson Channel. It is navigable from June to September, but during the rest of the year is so encumbered with floating and fixed ice as to be impassable.

(2.) **Hudson Bay**, the “Mediterranean of North America,” is upwards of 1000 miles long and between 500 and 600 miles broad, and has an area of 350,000 square miles. The principal inlets are *James Bay*, on the south, and *Chesterfield Inlet*, on the west. The broad inlet north of Southampton Island is called *Fox Channel*. Hudson Bay communicates with the Atlantic by a wide strait of the same name, and received its name from the gallant but unfortunate navigator, Henry Hudson, who discovered it in 1610.

(3.) The **Gulf of St. Lawrence** is enclosed on three sides by Newfoundland and the coasts of Canada and Nova Scotia. To the west it opens into the wide estuary of the St. Lawrence; to the east it communicates with the Atlantic by the broad opening between the south-west extremity of Newfoundland and the northern point of Cape Breton, and also north-east by the *Strait of Belleisle*, between Newfoundland and the Labrador coast, and south-east by the *Gut of Canso*, between Cape Breton Island and Nova Scotia. This gulf is deep, but thick fogs greatly endanger its navigation in summer, and in winter it is entirely frozen over.

(4.) The **Bay of Fundy**, between Nova Scotia and New Brunswick, is remarkable for its strong and rapid tides, which at the equinoxes attain the astonishing height of 70 feet.

(5.) The **Gulf of Mexico** is an oval-shaped basin with an extreme diameter of more than 1000 miles, and an area of 800,000 square miles. It communicates with the Atlantic by the *Strait of Florida*, and with the Caribbean Sea by the broader *Channel of Yucatan*. Except near the shore the navigation is easy, but it is subject in winter to violent winds called “*Nortes*.” The characteristic feature of this gulf is the high temperature of its water, and its being the *cul-de-sac* whence issues the most important thermal current of the Atlantic—the Gulf Stream.

(6.) The **Caribbean Sea** lies between the coasts of Central and South America on the west and south. Vessels enter this sea from the Atlantic by the Mona, Windward, and other numerous “*passes*” or channels between the islands of the West Indies, which limit it on the east. The Caribbean Sea extends east and west for about 1800 miles, and north and south for upwards of 1000 miles.

(7.) The **Gulf of California** has an average breadth of 80 miles, and extends inland for 700 miles.

(8.) The **Gulf of Boothia** is a large indentation on the Arctic Coast of America, and is connected with Baffin Bay by Prince Regent Inlet and Barrow Strait, and with the Arctic Ocean by Bellot Strait, Franklin Channel, and Melville Sound.

2. **STRAITS**.—The following are the principal straits:—Hudson, Davis, Barrow, Melville, and Behring.

(1.) **Hudson Strait** connects Hudson Bay with the Atlantic Ocean.

(2.) **Davis Strait** connects Baffin Bay with the Atlantic Ocean.

(3.) **Barrow Strait** (with Lancaster and Melville Sounds) connects Baffin Bay with the Arctic Ocean.

(4.) **Melville Sound** is a westwardly extension of Barrow Strait.

(5.) **Behring Strait** connects the Arctic and Pacific Oceans, dividing the continents of North America and Asia.

3. **CAPES**.—The principal capes are:—

(1.) *On the east coast*—Capes Farewell, Charles, Race, Breton, Sable, Cod, Hatteras, Sable, Catoche, Gracias-à-Dios.

(2.) *On the north*—Capes Barrow and Bathurst.

(3.) *On the west*—Capes Prince of Wales and St. Lucas.

The most northerly point of the American mainland is *Murchison Promontory*, the extreme point of Boothia peninsula. This headland is, however, not much farther north than the better known point of *Cape Barrow*. *Cape Charles* is the most easterly point of North America, and *Cape Prince of Wales* the most westerly point.

4. **PENINSULAS**.—The four following are on the *east* side of North America:—Labrador, Nova Scotia, Florida, and Yucatan.

The two following are on the *west* side:—Lower California and Alaska.

The peninsula of Labrador terminates in *Cape Chudleigh*. Nova Scotia is joined to the mainland by the *Isthmus of Chignecto*, 8 miles across. Florida ends in *Cape Sable*, and Yucatan in *Cape Catoche*. Lower California terminates in *Cape St. Lucas*, and Alaska in *Cape Prince of Wales*, the most westerly point of the American mainland.

5. **ISTHMUSES**.—The most important isthmus in the New World is that of Panama, which connects North and South America.

(1.) The **Isthmus of Panama** is a narrow region, of considerable length (between four and five hundred miles), which divides the waters of the two greatest oceans of the globe. Its breadth varies from less than thirty to between seventy and eighty miles.

(2.) Two other narrow portions of the Mexican Isthmus are distinguished as the **Isthmus of Chiquimula** (170 miles across), between the Pacific and the head of the Gulf of Honduras; and the **Isthmus of Tehuantepec** (140 miles), between the gulf of the same name, and the opposite shores of the Mexican Gulf.

ISLANDS.—1. On the *east* side of North America are the West Indies, the Bermuda Islands, Newfoundland, Prince Edward Island, Anticosti, and a few small islets in the Gulf of St. Lawrence.

2. On the *north* are Greenland, Cumberland Island, Southampton Island, Cockburn Island, North Devon, Grinnell Land, Grant Land, the Parry Islands, Banks Land, Victoria Land, Boothia, and other little-known tracts of land that lie to the west and northward of Baffin Bay.

3. On the *west* are Vancouver Island, the Queen Charlotte Islands, and the Islands of the Sitka Archipelago.

(1.) The West Indies are an insular region of vast extent, and embrace a great multitude of islands, of various sizes and form. The largest of the number is *Cuba*; the second in size, *Hayti*; the third, *Jamaica*; and the fourth, *Porto Rico*. All the rest are of much smaller dimensions.

(2.) The insular masses of land by which Baffin Bay is enclosed on the east, north, and west have only been partially explored. Greenland, which has been traced as far north as the 83d parallel, probably embraces a great many distinct islands. It is divided from Grant Land (on the west) by Robeson Channel. *Cape Columbia*, in latitude $83^{\circ} 7'$ north, is in Grant Land, and is the most northerly point of land known at present.

SURFACE.—The highlands of the New World differ from those of the Old World in some important regards. Their direction is for the most part north and south, and they are situated towards the maritime borders of either continent, instead of within its more central regions. The Asiatic continent presents in this respect a striking contrast to either North or South America.

MOUNTAINS.—1. The two chief mountain-systems of North America are the *Rocky Mountains* and the *Alleghany Mountains*. The former are towards the western, the latter towards the eastern side, of the American continent. The Rocky Mountains are the chief axis of elevation—the backbone, as it were—of the North American continent, and their higher portions more than double the altitude of the Alleghany system.

(1.) The Rocky Mountains—though towards the western side of the continent, regarding it as a whole—are removed by several hundred miles from the shores of the Pacific. The intervening country consists of a succession of highland regions, bordered on the west by distinct mountain-chains, which latter rival in altitude the main axis of the Rocky-Mountain system. The mountains of the west coast are not a continuous chain, but a series of detached chains and groups, through the openings between which numerous rivers pass on their course to the Pacific Ocean.

(2.) The Rocky Mountains reach in their highest elevations nearly 16,000 feet above the level of the sea. *Mount Brown* (15,900 feet) and *Mount Hooker* (15,700) are two of their loftiest points. These and other lofty summits are within the middle and southerly portions of the mountain-system; to the north the mountains diminish in height, and sink into mere hills as they approach the shores of the Arctic Ocean.

(3.) Some of the mountains belonging to the western coasts of North America attain a height which surpasses that of the Rocky Mountains. *Mount St. Elias* and *Mount Fairweather*, on the border-line between British territory and Alaska, are two of the highest peaks, and the first-named is said to reach 17,500 feet.

(4.) The highest elevations of the Alleghany Mountains scarcely exceed 6000 feet, but the average height is not more than half that altitude.

2. The entire region situated west of the Rocky Mountains consists of highlands, alternating with mountain-chains and enclosed valleys. The most remarkable portion of this tract is the Plateau of Utah, a territory which is enclosed by mountain-chains on every side, and has its own system of river-drainage, like some of the interior plains of the Asiatic continent.

(1.) The highlands which stretch along the western side of North America are prolonged southward into the narrow regions of Mexico and Central America, the whole interior of which consists of elevated plateaus. The highest parts of the Mexican tablelands reach 9000 feet above the sea. Above these plateaus there rise numerous volcanic cones, several of which attain a great

height. The loftiest of the number is called *Popocatepetl*, which reaches 17,770 feet above the sea, and is the highest mountain in North America.

(2.) The tablelands of Central America (as the narrower tract of country lying to the south-east of Mexico is called) are less elevated than the Mexican tablelands. Their western side is bordered by a succession of lofty peaks, many of them active volcanoes, which make near approach to the waters of the Pacific.

LOWLANDS.—The whole interior of North America, from the Gulf of Mexico to the Arctic Ocean, and from the Rocky Mountains to the Alleghanies, is a vast lowland plain. The northwardly division of this plain slopes towards Hudson Bay and the Arctic Ocean, into one or other of which its rivers are discharged. Its southward portion inclines towards the Gulf of Mexico, and is watered by the great river Mississippi and its tributaries.

1. The southwardly division of the great plain of North America is the region of the *prairies*.¹ These are vast natural meadows, which occupy great part of the Mississippi valley, especially in the neighbourhood of the upper Mississippi and the stream of the Missouri. Nearer the mountains the plain is often covered with woodland tracts. Alternate forest and prairie form indeed the distinguishing features of nature in the New World.

2. To the east of the Alleghany Mountains there is a lowland plain of some extent, which borders the Atlantic coast. There are extensive marshy tracts in some parts of this region towards the sea.

3. The lowland plains of the New World bear a much larger proportion to its entire extent than do the highland regions. America differs strikingly in this respect from the Asiatic continent. In Asia the mountains and highlands fill up the great central regions of the continent, and the lowlands occupy its outer borders; in North America the lowland plains constitute the great mass of the continent, and the highlands are limited to the vicinity of the ocean.

RIVERS.—The principal rivers on the east side of North America, named in the order of the seas into which they flow, are—

1. On the east—

Flowing into the Gulf of Mexico—Mississippi, Grande del Norte.

Flowing into the Gulf of St. Lawrence—St. Lawrence.

Flowing into Hudson Bay—Nelson, Churchill or Missinnippi.

Flowing into the Atlantic Ocean—Connecticut, Hudson, Delaware, Susquehanna, Potomac, James, Roanoke, Savannah, Alatomaha.

2. On the west—

Flowing into the Pacific Ocean—Fraser, Columbia,² Sacramento.

Flowing into the Gulf of California—Colorado.

3. On the north—

Flowing into the Arctic Ocean—Mackenzie, Coppermine, and Back.

The number and extent of its inland waters are a distinguishing feature of North American geography. Two of the rivers of this continent are greatly superior to any others, and rank among the most considerable rivers on the globe. These are the Mississippi and the St. Lawrence.

(1.) **The Mississippi**—measuring from the mouth of the river up to the source of its great tributary, the *Missouri*—is 4000 miles long. This is a greater length of channel than belongs to any other river in the world. The proper stream of the Mississippi, however (that is, the river which is called by the name of Mississippi throughout), is not more than 2400 miles from its source

¹ French, *prairie*, a meadow.

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² Or "Oregon."

to its outlet. The Mississippi rises in the midst of the central plain, in the small lake of Itasca. The Missouri rises in the Rocky Mountains, and joins the Mississippi about midway in the course of the latter river, a short distance above the town of St. Louis. The Mississippi has a vast number of tributaries, of which the *Ohio* is (next to the Missouri) the most considerable. The Ohio comes from the Alleghany Mountains, and joins the Mississippi on its left or eastern bank.

(2.) The river *St. Lawrence* has a much shorter course than the Mississippi, but it pours into the sea an immense volume of water, derived from the great lakes of which it forms the outlet. Towards its mouth the *St. Lawrence* becomes a vast estuary, increasing below Quebec from 25 to upwards of 100 miles across, from bank to bank.

LAKES.—The principal lakes, and the countries in which they are situated, are as follow :—

Lakes.	Countries.	Lakes.	Countries.
Superior, .	United States and Canada.	Athabasca, .	North-West Territ.
Michigan, .	United States.	Great Slave Lake,	do. do.
Huron, .	United States and Canada.	Great Bear Lake,	do. do.
Erie, .	do. do.	Great Salt Lake,	United States.
Ontario, .	do. do.	Nicaragua, .	Central America.
Champlain, .	United States.	Leon or Managua,	do. do.
Winnipeg, .	North-West Territory.		

The largest of these is *Lake Superior*, which is the largest freshwater lake on the globe. It covers 32,000 square miles, which is about the size of Ireland, and is more than double the size of either Switzerland, Holland, or Greece.

The five great lakes—*Superior*, *Michigan*, *Huron*, *Erie*, and *Ontario*—have together an area of more than 90,000 square miles, which exceeds that of the whole island of Great Britain. These lakes are united by channels which pass from one to the other, the whole forming a continuous body of water, and the river *St. Lawrence* connects them with the ocean. The water of *Lake Champlain* also passes (by the river *Richelieu*) into the *St. Lawrence*.

One thing deserving of special notice in the physical geography of North America, is the way in which its river-basins are connected with one another—there being in several cases no intervening high ground between their respective waters. The source of one of the small tributaries of the upper Mississippi is only a few miles' distance from a stream which flows into Lake Winnipeg (the Red River), and there is nothing but a tract of meadow between the two. Again, from Lake Wollaston (one of the smaller lakes of the great plain, to the south-east of Lake Athabasca) there issue two streams, one at each extremity of the lake. One of these streams ultimately finds its way into the river Churchill, which discharges into Hudson Bay; the other passes into Lake Athabasca, which belongs to the basin of the Mackenzie River. This peculiarity in the river drainage of the North American continent results from the generally level nature of its vast interior, and is highly important, as adding to its facilities for extended inland navigation.

EXAMINATION QUESTIONS.

1. What isthmus connects North and South America?
2. By what oceans is North America bounded on the east, north, and west?
3. What, in round numbers, is the area of North America? What proportion does this bear to the magnitude of Europe? What to that of Asia?
4. Name the seas, gulfs, &c., on the east side of North America.
5. Point to the following on the map:—the Gulf of Boothia, Gulf of California, Gulf of St. Lawrence, and Bay of Fundy.
6. What strait forms the entrance to Baffin Bay? What to Hudson Bay?
7. What strait and sound connect Baffin Bay with the Arctic Ocean?
8. Name as many as you can of the principal capes of North America. Which is the most northerly? Which the most westerly?
9. What four peninsulas belong to the eastern side of North America?
10. What two peninsulas are on the western side of this continent?
11. Name as many as you can of the islands of North America.
12. In what characteristic do the highlands of the New World differ from those that belong to the Asiatic continent?
13. Name the two chief mountain-systems of North America. Which of the two reaches the greater altitude?
14. What kind of country extends along the Pacific coasts of North America, between the Rocky Mountains and the sea?
15. In what part of North America are the following:—Mount St. Elias, the plateau of Utah, and the tablelands of Mexico?
16. Name the highest among the volcanic cones that rise above the Mexican tableland.
17. What portions of North America form a great lowland plain? By what mountains is this bordered on the east and west?
18. What are prairies, and in what part of North America do they occur?
19. Among the rivers of North America, which two flow into the Gulf of Mexico? Which one into the Gulf of St. Lawrence?
20. What two rivers flow into Hudson Bay? Trace out their courses on the map.
21. Name as many as you can of the North American rivers that flow directly into the Atlantic, and find them out upon the map.
22. What four rivers belong to the Pacific coasts of North America? Which one of them flows into the Gulf of California?
23. What three rivers flow into the Arctic Ocean?
24. Among the rivers of North America, which two are of superior importance to the others?
25. Which is largest among the lakes of North America? What four other lakes, of large size, are connected with this?
26. Point on the map to the following:—Lake Winnipeg, Great Bear Lake, Lake Athabasca, Lake Nicaragua, and the Great Salt Lake.
27. What condition of physical geography deserves to be specially noted in regard to the rivers of North America? Why is this important?

CLIMATE.—The climate of the New World is slightly colder, in corresponding latitudes, than that of the Old World. This is the case both in North and South America, but is more especially so in the former. This is easily accounted for. The broadest parts of America are those which stretch into its higher latitudes; within the tropics, North America is narrowed by the near approach of the oceans upon either side.

1. The American climate is also, for the most part, moister than that of the eastern division of the globe. The quantity of rain which falls in some parts of tropical America is surprisingly great—exceeding greatly the rainfall of southern Asia and the neighbouring archipelago. Within temperate latitudes, the amount is generally greater than in corresponding regions of the Old World.

2. The eastern side of North America is colder than the western side, and is also liable to greater extremes of heat and cold at opposite seasons. In these respects, the northern half of the New World resembles the European and Asiatic continents, upon the other side of the globe. All the country to the east of the Rocky Mountains is liable to severe winters, and to summers of intense heat. The Atlantic coasts of the United States and the regions adjacent to the Gulf of St. Lawrence offer striking examples of this. Quebec

is in nearly the same latitude as Paris, but it has a lower average of yearly temperature, while its summers are hotter and its winters colder than those of the French capital. The coast of Labrador stretches through the same parallels of latitude as the shores of Britain, but the climate of the two regions is widely different. The winter of Labrador is one of intense and long-continued severity, and its shores are rendered unapproachable by ice during many months of each year.

3. The islands of the West Indies, the coasts of Central America, the low plain at the foot of the Mexican plateau, and the southernmost portions of the United States, are the *hottest* regions of North America. The *coldest* parts are those that stretch from Hudson Bay towards the shores of the Arctic Ocean.

PRODUCTIONS.—Of the natural productions of North America, the practically inexhaustible supply of the precious metals, as well as the more useful metals and minerals, is a characteristic feature. The native vegetation is also particularly rich and varied. Both the native vegetation and zoology of America differ greatly from those of the eastern continent.

1. **Minerals.**—The mineralogy of America is equally varied as that of the Old World, and is perhaps (in some respects) richer. The country lying to the west of the Rocky Mountains is one of the chief gold-producing regions of the world. California, within the United States, and British Columbia, farther to the northward, are the great localities of auriferous deposits. Mexico is also a region of great mineral wealth, and its mines supplied at a former period considerable amounts of both *gold* and *silver*.

The countries on the eastern side of North America—especially in the neighbourhood of the Alleghany Mountains and the St. Lawrence basin—are rich in the more useful productions of the mineral kingdom—*iron* and other metals, with *coal*. The coalfields of the United States are of vast extent and great value. Coal also occurs in New Brunswick, Nova Scotia, and Cape Breton Island. Canada is rich in ores of *iron*, *copper*, and *lead*.

2. **Vegetation.**—The native vegetation of the New World differs in many important particulars from that belonging to the continents of the eastern hemisphere. Many of the plants and trees that are common in the Old World are not found upon the opposite side of the Atlantic Ocean; while, on the other hand, the productions of the American soil are in numerous instances peculiar to that portion of the globe. Even in the case of plants which belong to the same *genus* (or family), the species that are found in the opposite hemispheres are nearly always distinct. These differences are independent of climate, for the plants (and also the members of the animal kingdom) that belong to either continent are continually transported by man to regions distant from their native seat, and are found to flourish wherever the conditions of soil and climate are suitable for their development.

(1.) The vegetation and zoology of the New World at the present time has become, in virtue of such changes, different in many respects from what it was three and a half centuries since, when Europeans first planted their footsteps upon its shores. Numerous plants, and also numerous animals, which were *then* only found within the limits of Europe or Asia, now flourish within the valleys of the Mississippi and the St. Lawrence; while, on the other *hand*, the native productions of America have become distributed over the *different* regions of the Old World.

(2.) The characteristic differences between the vegetation of America and that of the continents belonging to the eastern half of the globe are least marked within high northerly latitudes, and become greater with every advance towards a more southern sky. The lands that lie in proximity to the Arctic Circle possess many features in common, alike in regard to plants and animals.

(3.) Of food-plants native to the New World, maize (or Indian corn), among the cereals, and the potato, among tuberous roots, are the two of greatest importance, and the distribution of which through other lands has conferred the greatest boon upon man. Maize is the only one of the cereals that is native to the American continent.

(4.) The *manioc* (or cassava) and *arrowroot*—both belonging to the order of tubers¹—are also among the native food-plants of America. The *manioc*-plant is a native of Central America, but is more abundantly distributed within the southern half of the New World. The *tobacco-plant*—now extensively diffused through other lands—is another of the characteristic productions of the American soil, though not exclusively a native of that region.

(5.) Plants of the *cactus* tribe are among the native productions of tropical America. The *azalia* and *magnolia*, among the ornaments of our greenhouses, are also derived from the New World.

(6.) The forests of the North American continent are of vast extent, and the timber which they supply forms one of the most valuable articles of American produce, in a commercial sense. The variety of trees—mostly of the deciduous kind—is astonishingly great. But they exhibit, in nearly all cases, specific differences from the like trees that flourish in the corresponding latitudes of Europe and Asia.

3. **Zoology.**—When America was first visited by Europeans it had none of the domesticated animals that are familiar to our common observation. Neither the horse, the ass, the common ox and sheep, the hog, the camel, nor the elephant, are native to the New World. Similarly, among carnivorous quadrupeds, the lion, tiger, leopard, and hyena are unknown in the American wilderness. The *puma* and the *jaguar*, natives of tropical America, are the most formidable of its carnivora; but they are decidedly inferior, both in strength and ferocity, to the lion and tiger of the Old World. In the higher latitudes of North America the numerous *wolves*, *foxes*, and *bears*, with the Canadian *lynx*, exhibit nearer approach to the zoology of correspondent regions in the eastern half of the globe, and the *moosedeer* or elk supplies a parallel to the reindeer of northern Europe.

(1.) The *bison* or American buffalo is one of the most characteristic animals native to the American prairie, but it has never been domesticated. The *musk-ox* and other members of the deer kind also occur. The *beaver* and numerous fur-bearing animals abound in the colder latitudes of the American continent.

(2.) The birds of America, and also the reptiles, insects, and other members of the animal world are in nearly all cases different from those of other continents. The aquatic birds, within very high latitudes (that is, beyond the Arctic Circle), and also some of the members of the insect tribe, in similar localities, offer the only exception to this. The true *humming-birds* are peculiar to America. The *rattlesnake* and the *boa-constrictor* are also American. The moist climate and abundant vegetation of the New World favour the development of the class of life to which the various members of the reptile and insect orders belong.

¹ Tubers are those plants which have knobs or lumps attached to their roots. The potato and the yam are the two most important of the edible tubers. The dahlia, among flowers, is a familiar example of this class of roots. The dahlia is a native of Mexico.

INHABITANTS.—The population of North America perhaps numbers about 68,000,000.¹ Three-fourths of these are whites, members of the European division of mankind. The remaining fourth consists of Negroes, native Indians, and mixed races.

1. The *native* of America is the red (or copper-coloured) Indian—one of the five leading varieties into which the human family is commonly divided. The numbers of this race have vastly diminished since the period of European settlement in the New World, and they are still diminishing rapidly. Within the whole vast territory of the United States there are only about a quarter of a million of the native American race now left. They are more numerous within Mexico and the states of Central America, where the genuine Indian is intermixed with the members of a half-caste race.

2. The white population of the United States and the St. Lawrence valley comprehends members of most European lands, but those of British descent are by far the most numerous. Hence the English language has become diffused over much the larger portion of the North American continent. Within tropical America the Spanish tongue is generally prevalent, since the white population of Mexico and the Central American states is almost exclusively of Spanish origin.

DIVISIONS.—The following are the principal divisions of North America :—

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| 1. BRITISH NORTH AMERICA (Quebec, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, North-West Territory, Manitoba, and Newfoundland).
2. THE UNITED STATES. | 3. MEXICO.
4. CENTRAL AMERICA (Guatemala, San Salvador, British Honduras, Honduras, Nicaragua, and Costa Rica).
5. THE WEST INDIES. |
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EXAMINATION QUESTIONS.

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| 1. Describe the climate of the New World.
2. Comparing the eastern and western coasts of North America, what characteristic difference of climate do they exhibit?
3. Which are the hottest parts of North America? Which the coldest?
4. What parts of North America constitute rich gold-producing regions?
5. In what parts of North America are coal and iron abundant?
6. In what respect do the plants and animals that are found within the New World in the present day differ from those which characterised it three centuries and a half since?
7. Which parts of North America make the nearest approach in their native vegetation and zoology to the productions of a like kind in the Old World?
8. Among food-plants mention some that are indigenous to the New World. | 9. Among the domesticated quadrupeds name some that were unknown to the New World at the period of its discovery by Europeans.
10. Mention the principal native American quadrupeds.
11. What animal represents in North America the reindeer of Northern Europe?
12. Mention some of the characteristic examples among birds and reptiles.
13. What conditions of the American climate favour the development of reptile and insect life?
14. To what division of the family of man do three-fourths of the population of North America belong?
15. Besides the above, what other families of mankind are represented in the population of America?
16. In which parts of North America does the English language prevail? In which parts the Spanish tongue? |
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¹ British North America, 3,800,000; United States, 50,180,000; Mexico, 9,500,000; Central America, 2,500,000; and the West Indies, 3,000,000.

BRITISH NORTH AMERICA.

The possessions of Great Britain within the New World comprehend more than a third part of the North American continent, together with several of the adjacent islands.

BRITISH NORTH AMERICA is bounded on the *north* by the Arctic Ocean, on the *south* by the United States, on the *east* by the Atlantic, on the *west* by the Pacific Ocean and the territory of Alaska (United States). The area comprised within these limits is estimated at 3,620,510 square miles, which is more than three-fourths the size of the European continent, and more than sixty times the area of England and Wales.

The whole of this vast territory is under the recognised authority of the British Crown, and the whole of it, except the island of Newfoundland, which is still a distinct colony, forms the "Dominion of Canada,"¹ which stretches across the entire breadth of the continent, from the Atlantic to the Pacific Ocean, and from the Great Lakes to the Arctic Ocean. The Dominion of Canada embraces within a federal union various provinces, formerly distinct colonies. It includes, besides Canada proper, the provinces of New Brunswick, Nova Scotia, and Prince Edward Island, on the side of the Atlantic; Manitoba and the North-West Territory and British Columbia, with Vancouver Island, lying beyond the Rocky Mountains, and adjoining the Pacific—in fact, the whole of the American continent north of the United States, except the north-western peninsula of Alaska.

NATURAL FEATURES.—The river St. Lawrence and the chain of lakes from which it issues are the great natural features of Canada proper. Everything in the geography, climate, and natural resources of Canada is connected with the great river and its still greater lakes. The St. Lawrence and its lakes are to Canada what the river Nile is to Egypt. The towns succeed one another along the river's course, and population spreads in the direction of the lakes which form a portion of its valley.

1. The river Niagara and the magnificent falls of that name are upon the border-line between Canada and the United States. The river Niagara connects Lake Erie with Lake Ontario, and has a course of about thirty miles between the two lakes. The surface of *Lake Erie* lies at a level of more than three hundred feet above the surface of *Lake Ontario*. Midway between the two the river is precipitated over a vast ledge of rock, forming in its descent of one hundred and sixty-two feet the *Falls of Niagara*, the most stupendous waterfall in the world. A large portion of the shores of *Lake Huron* and *Lake Superior* are within the limits of the "Dominion." Lake Michigan is entirely within the United States.

2. Besides the St. Lawrence, another vast river, the *Mackenzie*, one of the largest rivers of the globe, drains the immense expanse north of British Columbia, and falls into the Arctic Ocean by numerous mouths. West of the *Mackenzie* is the *Yukon*, the upper course of which only is within British North America;² east of it are the *Coppermine*, which falls into Coronation Gulf, and the *Great Fish* or *Back River*, whose estuary opens into the channel that divides King William's Land from the mainland. Farther south, the *Churchill*, *Nelson*, *Severn*, and other large streams enter

¹ In August 1880 an order in Council was issued to the effect that all British territories on the mainland and the islands, not previously included, except Newfoundland and

its dependencies, are to form part of the Dominion of Canada.

² The middle and lower course of the Yukon is within Alaska.

Hudson Bay; the *Albany* falls into James Bay. The chief river of British Columbia on the west is the *Fraser*, which discharges itself into the Gulf of Georgia. Of the numerous streams connected with the chain of lakes in the interior, the principal are the *Athabasca* and *Peace* rivers, which flow into Lake Athabasca, and the *Saskatchewan*, which enters Lake Winnipeg.

3. By far the greater portion of the vast area drained by the above-named rivers is level; the only strictly mountainous portion of the Dominion being in the extreme west, where the main ridge of the *Rocky Mountains* forms the natural eastern boundary of British Columbia. Near the Pacific coast are the *Sea Alps* or *Cascade Range*. In the eastern part of the Dominion are the *Watchik Mountains*, which form the water-shed or water-parting of Lower Canada, separating the streams flowing into the St. Lawrence from those flowing into Hudson Bay.

CLIMATE.—The climate of Canada is severe within the lower portion of the province, but is much more genial and temperate within its upper division. The portion of Upper Canada which is enclosed between the great lakes, in particular, enjoys a temperate and a delightful climate. In Lower Canada the winter is a season of intense and prolonged cold, which lasts through seven months of the year. The ice with which the St. Lawrence is annually covered does not break up until April, and rarely disappears before the middle of May. But during the greater part of this time the air is dry, the sky clear, and the cold healthy and invigorating. The seasons of spring and autumn are of exceedingly brief duration, summer and winter succeeding one another with a rapidity which is truly astonishing to the natives of countries that are differently circumstanced in such regards.

The climate of the neighbouring provinces does not differ materially from that of Canada. Prince Edward Island has a milder and more equable temperature than that of the adjacent mainland, and the winter of Newfoundland, though severe, is less so on the whole than that of Lower Canada. But the vast fields of ice which float past its shores, towards the breaking-up of the winter season, act injuriously upon the climate of Newfoundland, both by tendency to prolong the cold and by producing the fogs and moist vapours which are a well-known characteristic of the adjacent seas. The coast districts of British Columbia have an insular climate—the annual range being less than 30°. But east of the Cascade Range the climate is more extreme, and on the highlands the winter is exceptionally severe. The North-West Territory is subject to extremes of heat and cold; the summer, though short, being hot, and the long winter extremely cold, especially in the north. In the southern division of the territory the climate is somewhat milder, but even there the winter lasts five months, during which it is intensely cold.

PRODUCTIONS.—Among the natural resources of the St. Lawrence valley the produce of the forest takes the first place. The forests (consisting chiefly of trees belonging to the pine tribe) are still of vast extent, notwithstanding the immense supply of *timber* which they have yielded for a long term of years. In fact, the supply of timber from the banks of the St. Lawrence and the Ottawa may be said, for all practical purposes, to be inexhaustible. The mineral resources of the Dominion are great, but as yet only partially worked, pending the extension of railways and roads. *Gold*, *coal*, *iron*, *lead*, *copper*, and other metals and minerals are abundantly distributed throughout the country, and when properly utilised will surpass in value all the other productions.

In the more eastward of the Canadian provinces, and especially in Newfoundland, the *fisheries* constitute a great source of wealth. In Newfoundland they supply the principal articles of produce, and employ nearly the entire population of the island. The cod-fishery (which is the most important) is pursued not only in the neighbourhood of the shores, within the gulfs which everywhere indent the coast of Newfoundland, but also over the extensive submarine banks to the south and south-eastward of the island. In the North-West Territory fur-bearing animals (bear, beaver, fox, sable, seal, ermine, &c.) are numerous, and large quantities of furs are shipped to England from the various depôts or trading stations of the Hudson Bay Company.

INHABITANTS.—The “Dominion of Canada” includes a total population of about 3,700,000.¹ More than three-fourths of the number are in Canada proper, that is, Ontario and Quebec provinces, and it is within the former (Upper Canada) that the increase of population is most rapid. Newfoundland has a population of 146,000.

The great bulk of the population are of British descent, excepting in the case of Lower Canada, where the majority are of French origin—descendants of the settlers in Canada prior to its falling under the rule of Britain in 1763. The Indians are few in number and are rapidly decreasing. In the more settled provinces certain tracts of land are reserved for them. A few tribes of Esquimaux live along the coasts from the mouth of the Mackenzie to Labrador.

INDUSTRY.—The labours of the field and the forest are the prime objects of the Canadian settler's industry. The soil of Canada possesses surprising fertility, and, when cleared of the timber by which it is everywhere naturally covered, yields the most abundant crops.

All the cereals of the Old World are grown, as well as *maize*, and *corn* and *flour* stand first in the list of exports to Great Britain.² *Timber* and other forest produce (as *pot* and *pearl ash*) are also a great source of wealth, and form an important item of export. The principal articles imported are *cotton* and *woollen goods* and *iron*. The exports from Newfoundland to Great Britain are chiefly *fish* and *train-oil*.

Internal Communication is greatly facilitated by the numerous navigable rivers, canals, and lakes, and a network of railways. Several sections of the *Canadian Pacific Railroad* have been already constructed, and final arrangements have been recently made for the completion of the entire line, the total length of which will be 2400 miles.

GOVERNMENT.—By the Federation Act of 1867, passed by the imperial parliament, Canada, New Brunswick, and Nova Scotia, hitherto distinct colonies, were united into one general government under the designation of the “*Dominion of Canada*.” This comprehends the four provinces of Ontario (Upper Canada), Quebec (Lower Canada), New Brunswick, and Nova Scotia, to which Manitoba, Prince Edward Island, British Columbia, and the North-West Territory have since been added. Each province has a lieutenant-governor and a local legislature, the whole combining in the election of a general parliament, sitting at Ottawa, and presided over by a Governor-General of the entire “Dominion.”³

¹ The population of Canada in 1800 was estimated at 240,000; in 1821, at 580,000; in 1851, at 1,840,000; and in 1861, at 3,000,000. During the last decade over half a million immigrants arrived in Canada, chiefly from the United Kingdom.

² Corn and flour (1879) £4,266,531; timber (1879) £2,823,115.

³ Canada is said to have been discovered in

1497 by Sebastian Cabot. The French took possession of the country in 1535, and founded Quebec in 1608. A series of wars between the English settlers in the New England States and the French Canadians culminated in 1759 in the capture of Quebec by Wolfe, and the subsequent cession of the whole territory to Great Britain by the Treaty of Paris (1763).

Finance.—In 1878-9 the total public revenue amounted to £4,626,000, and the expenditure to £5,025,000. The public debt (upwards of £30,000,000) has been chiefly incurred in the construction of railways, canals, and other public works.

Army.—With the exception of the garrison of the fortress of Halifax, there are no imperial troops in the Dominion. The colonial forces comprise an active militia, numbering 45,000 men, and the reserve militia, 655,000.

DIVISIONS AND TOWNS.—The provinces and chief towns of British North America are shown in the following table :—

Provinces.	Towns.
1. ONTARIO	Ottawa, Toronto, Kingston.
2. QUEBEC,†	Quebec,‡ Montreal.
3. NEW BRUNSWICK	St. John, Fredericton.
4. NOVA SCOTIA, ...	Halifax, Sydney.
5. PRINCE EDWARD ISLAND, ...	Charlotte Town.
6. { BRITISH COLUMBIA, ...	New Westminster.
{ VANCOUVER ISLAND, ...	Victoria.
7. NORTH-WEST TERRITORY, ...	Battleford.
8. MANITOBA, ...	Winnipeg.
9. NEWFOUNDLAND, ...	St. John's.

1. **QUEBEC** includes that portion of the St. Lawrence valley which is towards the mouth of the river and below the junction of the Ottawa. On the north this province is bounded by the North-East Territory and Labrador, and on the west by the province of Ontario. South of the St. Lawrence the boundary between Quebec and the United States is marked partly by the 45th parallel. In the extreme east, the river Restigouche and Chaleur Bay divide it from New Brunswick.

(1.) The great natural features of this province are the *St. Lawrence*¹ and its tributaries, of which the principal are the *Ottawa*,⁴ *St. Maurice*, and *Saguenay* on the left bank, and the *Richelieu*, *St. Francis*, and *Chaudière* on the right. The northern affluents either rise in or are connected with a labyrinth of lakes, of which the most extensive is *Lake St. John*, drained by the Saguenay. Of the southern tributaries, the Richelieu rises in *Lake Champlain*, which is within the United States. The so-called *Watchish Hills* form the limit of the lower St. Lawrence basin on the north, and are sometimes regarded as forming the boundary between Quebec and the North-East Territory.

(2.) South of the St. Lawrence the country is for the most part level, fertile, and well-cultivated, and, except in the extreme east, well-peopled. North of the St. Lawrence the settled and cultivated districts are confined to a narrow belt along the river between the mouths of the Ottawa and the Saguenay. North and east of the latter the climate is so severe that cultivation is impossible. In the cultivated districts vast quantities of wheat, &c., are grown, but the chief wealth of the province lies in its vast forests and productive fisheries.

(3.) More than half the people of Quebec are descendants of the old French settlers, and still preserve their language and religion. They are naturally averse to British rule, and in 1837 broke out in insurrection ;⁵ on the

¹ Formerly Canada East or Lower Canada. Area, 193,355 square miles; population, 1,191,356; an average of only 6 persons to the square mile.

² Quebec is frequently called the "Gibraltar of America." Its fortifications are considered impregnable. The victory gained by the gallant Wolfe, in 1759, on the plains of Abraham, immediately without the town,

ensured the transfer of Canada from French to English rule, and preserves to Quebec a conspicuous place in the page of history.

³ The Magdalen Islands in the Gulf of St. Lawrence, north-west of Cape Breton, belong to Quebec.

⁴ The Ottawa river is connected with Lake Ontario by the Rideau canal and river.

⁵ Under Papineau.

suppression of which Quebec was united with Upper Canada in one government. In 1867, however, the two provinces were again separated. The government is vested in a lieutenant-governor (appointed by the Governor-General) and an executive council and two legislative chambers.

(4.) The principal towns are Quebec, Montreal, and Three Rivers. Quebec (population, 60,000), the capital of the province and the former capital of all Canada, stands on the north bank of the river St. Lawrence, in a commanding position, and enjoys a large share of commerce. Montreal¹ (population, 120,000), farther up the St. Lawrence, is situated on an island in the river, immediately below the junction of the Ottawa. It is the largest town in Canada, and has considerable trade and manufactures. Three Rivers, at the confluence of the St. Maurice and the St. Lawrence, has a large lumber trade.

2. **ONTARIO**² lies between Quebec on the east, the North-West Territory on the north, and the great lakes on the south. Ontario is by far the most important province in British North America.

(1.) This province is divided from Quebec by the *Ottawa River*, and from the North-West Territory by the *Albany*, which flows into James Bay, the southern extremity of Hudson Bay. Between Ontario and the United States are the *Upper St. Lawrence*, *Lake Ontario*, *Niagara River*, *Lake Erie*, *River Detroit*, *Lake St. Clair*, *River St. Clair*, *Lake Huron*, *River St. Mary*, and *Lake Superior*. Of the rivers running north, besides the Albany, the longest are *Moose River* and *Abittibi*, the latter flowing from a lake of the same name. Of the numerous lakes in the interior, the chief are *Lake Nipigon* in the east, and *Lake Nipissing* in the west.

(2.) The settled portion of Ontario is enclosed by the Ottawa, St. Lawrence, and Lakes Ontario, Erie, and Huron. The rest of the country to the north and west is covered with immense forests of pine, beech, oak, &c. Formerly the whole country was forest-covered, and lumbering formed the only occupation of the colonists. The extent of land under cultivation, however, has enormously increased within the last few years, and agriculture is now the chief industry in the southern districts. The vast mineral resources of the country are as yet but little developed. *Iron*, *lead*, *copper*, *gold*, *silver*, *tin*, and other metals are found in the neighbourhood of the great lakes. The *petroleum* wells of the peninsular portion of the province are extremely productive.

(3.) The population of the province has rapidly increased within recent years, and the people are mostly of British descent, but there are several thousand German and Dutch settlers. The provincial government is similar to that of Quebec, and is administered by a Lieutenant-Governor, aided by an executive and legislative council. For administrative purposes the province is divided into 96 counties.

(4.) The principal towns of Ontario are Ottawa, Toronto, and Kingston. Ottawa (population, 20,000), the capital of the "Dominion of Canada," lies on the river Ottawa, 90 miles above its junction with the St. Lawrence. Toronto (population, 70,000), the provincial capital, on the north-west shore of Lake Ontario, is, however, the largest city of Upper Canada. Kingston is situated at the outlet of the St. Lawrence³ from Lake Ontario. Of the smaller towns the most important are Hamilton, on Burlington Bay (Lake Ontario), and London, on the river Thames, which flows into Lake St. Clair.

¹ The Grand Trunk Railway crosses the St. Lawrence at Montreal by the famous *Victoria Bridge*, the longest tubular bridge in the world.

² Formerly Canada West or Upper Canada. Area, 107,780 square miles; population,

1,620,851; 15 to the square mile. In 1794 the total population only amounted to 65,000. The increase is chiefly due to immigration.

³ The portion of the St. Lawrence immediately below Kingston is known as the *Lake of the Thousand Isles*.

3. **NEW BRUNSWICK**¹ borders on the western side of the Gulf of St. Lawrence, and is bounded on the south by the Bay of Fundy, on the east by the state of Maine, and on the north by the extreme south-eastern portion of the province of Quebec.

(1.) The boundary between New Brunswick and Quebec is formed by the river *Restigouche*, which flows into *Chaleur Bay*, an inlet of the Gulf of St. Lawrence. On the west the river *St. John*, a straight line from the Grand Falls of the St. John to the Chiputneticook Lakes, and thence the river *St. Croix*, which flows into *Passamaquoddy Bay* (an inlet of the Bay of Fundy), divide this province from the state of Maine. On the south the boundary is formed by the *Bay of Fundy* and *Chignecto Bay*, and the canal across the *Isthmus of Chignecto* (which unites New Brunswick and Nova Scotia).

(2.) The chief physical feature of New Brunswick is the river *St. John* (400 miles long), which is navigable for small vessels to Fredericton, and for boats to the Grand Falls, 200 miles from the sea. The valley of the St. John forms a narrow and, on the whole, level plain, rising on the east into a plateau of considerable height, which extends to the level belt along the east coast. North of the uplands the country is drained by the *Miramichi* (which enters *Miramichi Bay*) and the *Restigouche*.

(3.) Both the uplands and valleys of New Brunswick are covered with magnificent forests of pine and other woods, and forest produce form the chief exports. Agriculture is also much attended to in the lower districts, but, next to the forests, the chief wealth of the province lies in its valuable mines of *coal*, *iron*, and other minerals. Fishing and shipbuilding are also important industries.

(4.) The people of New Brunswick are mainly of British descent, but there are many descendants of the old French settlers and a few Indians. The government is administered by a Lieutenant-Governor, Executive Council, and a Legislative Council and Assembly.

(5.) The chief towns are Fredericton and St. John. **Fredericton** (*population*, 6000), the capital of New Brunswick, stands on the river St. John, 80 miles above its mouth; but the town of St. John (*population*, 20,000), at the outlet of the river into the Bay of Fundy, is a more considerable place, and commands the chief share in the maritime trade of the province.

4. **NOVA SCOTIA**² is a peninsula lying to the south-east of New Brunswick, and nearly enclosed between the waters of the Atlantic, the Gulf of St. Lawrence, and the Bay of Fundy. The island of **Cape Breton**,³ which adjoins the eastern extremity of Nova Scotia, is politically attached to it, and forms part of the same colony.

(1.) Nova Scotia is united to New Brunswick by the *Isthmus of Chignecto*, and is divided from Prince Edward Island by *Northumberland Strait*, and from Cape Breton Island by the *Gut of Canso*. Cape Breton Island is nearly bisected by a remarkable fiord, the *Bras d'Or*. The coasts of both divisions are indented by numerous inlets, some of which form magnificent harbours.

(2.) Both divisions contain an abundance of valuable timber, but the province is chiefly famous for its *coal* mines. *Iron ore* and *gypsum* are plentiful, and some *gold* is produced. Agriculture is gradually progressing, but the chief industries at present are mining, lumbering, and fishing. The climate

¹ Area, 27,312 square miles; population, 285,594: 10 to the square mile. New Brunswick was colonised by the French in 1672, and formed part of the French colony of *Acadia* until 1713, when it was ceded to England. The great fire in 1825 devastated a district 100 miles in length, and destroyed many towns.

² Area, 27,731 square miles; population, 387,800; 18 to the square mile. Nova Scotia

was discovered by Cabot in 1497, and was colonised by the French. It was taken and retaken four times by the English, and was finally ceded to England by the Treaty of Utrecht, 1713.

³ Cape Breton Island was also discovered by Cabot in 1497. The fortress of *Louisbourg*, on the south-east coast, was taken by the English in 1758, and the island finally ceded by the Treaty of Paris, 1763.

of Nova Scotia is not so rigorous as that of Canada proper. Halifax and other ports on the eastern coast are open all the year round, while the St. Lawrence on the north is annually frozen over.

(3.) The people of Nova Scotia are mainly of British or French descent, but there are about two thousand Indians. The form of government is similar to that of New Brunswick. The principal towns are Halifax and Sydney. **Halifax** (*population*, 30,000), the capital of Nova Scotia, is distinguished chiefly for its fine harbour and its importance as a packet-station. It is also the chief British naval station in North America. **Sydney**, the chief town of Cape Breton Island, has a considerable trade, chiefly in coal.

5. **PRINCE EDWARD ISLAND**¹ is within the southern portion of the Gulf of St. Lawrence, nearly adjacent to the shores of Nova Scotia and New Brunswick, from which it is divided by Northumberland Strait.

(1.) The coasts of Prince Edward Island are deeply indented. The interior is on the whole level, and is still largely covered with forests. The soil of the cleared districts is very fertile, and agriculture is the chief industry. Unlike the adjoining provinces, the mineral productions are unimportant. The fisheries, however, are valuable, and large numbers of horses and cattle are reared.

(2.) The provincial government is similar to that of the other provinces of Canada. The only town of importance is the sea-port of **Charlottetown** (*population*, 8800), the capital.

6. **BRITISH COLUMBIA**² is among the latest organised of the British territories in the New World, having been formed into a colony in 1858. The discovery of gold within the valley of the river Fraser led to this measure—an extensive emigration thither having at once commenced. The colonial population, however, is at present fewer than 50,000; the native Indians are of about the same number.

(1.) The colony of British Columbia includes the tract of country lying between the Rocky Mountains and the Pacific Ocean, and extending northward from the United States frontier to one of the branches of the Peace River (lat. 57° 20'), comprising an area of about 225,000 square miles. The natural features of the province are extremely diversified. Of its numerous rivers, the Fraser is the most considerable, and it is within the valley of the Fraser and its tributary streams that the rapidly increasing population is chiefly distributed. The climate of the province, so far as is yet ascertained, is temperate and healthy, and the forest vegetation is rich and luxuriant in the extreme. The town of **New Westminster**, on the north bank of the Fraser, 8 miles above its entrance, is the chief town, but the capital of the colony is **Victoria**, near the southern extremity of Vancouver Island.

(2.) **Vancouver Island**, formerly a distinct colony, now forms a portion of British Columbia. It is divided from the mainland by the Gulf of Georgia. Vancouver Island has an area of 14,000 square miles, and includes a native Indian population amounting to about 10,000, with between 6000 and 7000 colonists. Vancouver Island furnishes good coal. **Victoria** has an excellent harbour (Esquimalt) and considerable trade.

* * The colonies above described form self-governed communities, through the medium of representative institutions, under the supreme direction of authorities appointed by the Crown. The remainder of the British possessions in this region was until 1869 under the jurisdiction of the Hudson Bay Company, but in that year the right of government of this vast area was transferred to the Canadian Dominion.

¹ Prince Edward Island was discovered by Cabot in 1497; taken by the English, 1758; finally ceded at the peace of 1763; admitted into the Dominion, 1873.

² The exact boundaries of British Columbia are the 60th parallel on the north, the 49th parallel on the south, and the Rocky Mountains and the 120th meridian on the east.

7. The **NORTH-WEST TERRITORY**, formerly called the **Hudson Bay Territory**, embraces a vast region, which stretches from Canada to the Rocky Mountains and the Arctic Ocean. It includes the whole tract of country watered by the rivers that fall into Hudson Bay (of which the Nelson and the Churchill are the principal), besides the valleys of the Mackenzie, Coppermine, and Back rivers, in the direction of the Polar Sea. Lake Winnipeg is within the southern portion of the territory. The great river Saskatchewan, formed by the junction of two branches which rise in the Rocky Mountains, flows into this lake on its north-western shore, as a stream called the Red River does from the southward. The river Nelson issues from the northern extremity of the lake, and connects it with Hudson Bay.

(1.) The basin of Lake Winnipeg, with the valley of the Saskatchewan, is probably the most fertile and valuable portion of the whole territory. Extensive forests, alternating with tracts of prairie-land, cover the southwardly division of this great region, which becomes colder with each succeeding parallel of latitude until it passes towards the extreme north into a dreary and barren wilderness.

(2.) The fur-bearing animals which have their home in this extensive region have hitherto supplied its sole produce of value, and the collection of their skins forms the object for which it is frequented by the servants of the Hudson Bay Company. But it has (at least in some parts) capabilities of another description. Large portions of the territory are said to abound in mineral deposits; and there are extensive tracts which are well suited for the purposes of agricultural settlement. The population is exceedingly thin and scattered, consisting of a few thousand settlers and Indians. On the shores of the Polar Sea, and within the extensive insular region that adjoins Baffin Bay, are found the Esquimaux—a people of smaller stature than the Indians, who subsist principally by fishing, passing the long and severe winter in hollows burrowed within the snow.

(3.) At various intervals throughout this territory the Hudson Bay Company maintain fortified posts or stations for the purpose of collecting the furs. The principal of these is **Fort York**, on the banks of Hayes river, a short distance above its entrance into Hudson Bay.

(4.) Four districts have been recently formed out of the North-West Territory, viz., **Kewatin**, between Manitoba and Hudson Bay; **Saskatchewan**, comprising the basin of the Saskatchewan river; **Quapelle**, west of Manitoba, and including the basin of the Quappelle and Upper Assiniboine rivers; and farther west, extending to the Rocky Mountains, the district of **Bow River**, embracing the district drained by the river so called, and which is an affluent of the South Saskatchewan. The principal places in these districts are *Fairford* in Kewatin, *Battleford* and *Edmonton* in Saskatchewan, *Fort Pelly* and *Quapelle* in Quapelle, and *Fort McLeod* in Bow river.

(5.) The whole of these territories are at present under the rule of a Lieutenant-Governor and Council. The capital and seat of government is **Battleford**, on the Canadian Pacific railroad, at the junction of the Battle river and the North Saskatchewan.

8. The tract adjoining the southern end of Lake Winnipeg, formerly known as the *Red River Settlement*, was in 1870 formed into the province of **MANITOBA**,¹ and annexed to the "Dominion of Canada."

¹ The boundary between Manitoba and the United States is formed by the 49th parallel.

(1.) Manitoba contains a settled agricultural population of about 12,000, chiefly emigrants of Scotch descent, with old servants of the Hudson Bay Company, and Indians and half-castes.¹ This tract of country forms the central seat of the colonial diocese of Rupert Land, which name is applied to the whole region between Hudson Bay and the Rocky Mountains.

(2.) A considerable portion of the land has been brought under cultivation, and wheat is extensively grown. The vast prairies are admirably adapted for sheep and cattle, great numbers of which are reared by the colonists. The chief town and seat of government is **Winnipeg**, on the left bank of the Red River.

8. **NEWFOUNDLAND** is a large island which forms the eastern limit of the Gulf of St. Lawrence, and is surrounded in other directions by the Atlantic Ocean. It has an area which is about one-eighth part greater than that of Ireland.² The coasts of Newfoundland are deeply indented, and form numerous bays. The south-eastern division of the island is almost divided from the main body of the land by the deep bays which penetrate its coast-line.

(1.) The cod-fishery on the Great Bank of Newfoundland is the most important in the world, and fishing is almost the only occupation of the people. **St. John's, Newfoundland** (as it is called to distinguish it from the city of that name belonging to New Brunswick), has a population of 14,000, and is not only the capital of the province, but is the only place deserving to be called a town which the island contains. All the settlements of Newfoundland are in the immediate neighbourhood of the coast, and the interior of the island is comparatively unknown. The *Atlantic Cables* terminate at Trinity Bay, on the south-east coast.

(2.) Newfoundland is the only British possession in North America (excepting, of course, the Bermudas and West Indies) not included in the "Dominion of Canada." The island was first discovered by Norwegians about the year 1000, and was visited by Cabot in 1497. The first settlement was made in 1623, and the first governor appointed in 1728.

(3.) The island of Anticosti, at the mouth of the St. Lawrence and the coast of Labrador, is also politically attached to Newfoundland.

The extreme eastern part of the British territory in North America is the coast of **Labrador**. The native inhabitants of Labrador are Esquimaux, among whom a few missionaries of the Moravian persuasion are settled. The vast territory between Labrador and the eastern coast of Hudson Bay, extending from Quebec to Hudson Strait, is known as the "North-east Territory."

The western coasts of **Greenland**, lying along Davis Strait from the neighbourhood of Cape Farewell northward to beyond Disco Island, belong to Denmark, and contain a few Danish settlements. The most northerly of these is Uppernavik, in lat. 70° 50'. The native population consists of Esquimaux.

Alaska³ embraces the north-western portion of the continent, and has an area of about 77,000 square miles. The range of mountains along the coast culminates in *Mount St. Elias* (17,900 feet). The principal river, the *Yukon*, has a total course of 2000 miles. Much of the surface is covered with forests, and fur-bearing animals are numerous, especially along the Arctic coast. The total population of this vast territory, however, only amounts to about 30,000, 500 of whom are whites (mostly at *Sitka* or New Archangel), the rest being Indians or Esquimaux.

¹ A rebellion of the French half-breeds under Riel in 1870 was suppressed by an expedition under Colonel (now Sir Garnet) Wolseley.

² Area, 40,000 square miles; population, 160,000: an average of 4 to the square mile.

³ Purchased from Russia by the United States in 1867.

QUESTIONS ON BRITISH NORTH AMERICA.

1. How is the British territory in North America bounded? What (in round numbers) is its area?
2. How many colonies does Britain possess within this region?
3. Name the principal rivers of Canada.
4. What constitute the chief natural features of Canada?
5. Where are the Falls of Niagara? Between what two lakes does the river Niagara flow?
6. Give some account of the climate of Canada and the other provinces.
7. By what circumstance is the climate of Newfoundland affected?
8. Name the chief natural resources of the St. Lawrence valley.
9. In what do the resources of Newfoundland and the North-West Territory chiefly consist?
10. Say what you know concerning the population of the British colonies in this region—as to their origin and their industrial pursuits.
11. What is the present form of government?
12. Name the chief divisions of British North America, and point them out upon the map.
13. State what you know of the province of Quebec.
14. By what event is Quebec historically distinguished?
15. Give particulars as to the natural features, productions, &c., of Ontario.
16. Describe briefly the provinces of New Brunswick, Nova Scotia, and Prince Edward Island.
17. Where is British Columbia? What considerable river flows through this province?
18. What island nearly adjoins the coast of British Columbia? What town does it contain?
19. What part of British America is distinguished as the North-West Territory?
20. Where is Lake Winnipeg? What rivers enter it?
21. What article of produce is derived from the North-West Territory?
22. In what part of this territory are the people called Esquimaux found? What is their chief pursuit?
23. State what you know of Manitoba.
24. Describe briefly the colony of Newfoundland.
25. Where is Labrador? Who constitute its native inhabitants?
26. Where is Greenland, and what portion of that region is under the dominion of Denmark?
27. Give a few particulars of the territory of Alaska.

THE UNITED STATES.

THE UNITED STATES OF NORTH AMERICA embrace the vast territory which stretches from the Atlantic Ocean to the Pacific, and from the great lakes to the Gulf of Mexico.

BOUNDARIES.—This territory is bounded on the *north* by British North America, on the *south* by Mexico and the waters of the Mexican Gulf, on the *east* by the Atlantic Ocean, and on the *west* by the Pacific.

The boundary between the States and British North America is partly natural (the rivers St. Croix, St. John, Upper St. Lawrence, and lakes Ontario, Erie, Huron, and Superior, Pigeon River, Kainy Lake, and Lake of the Woods) and partly artificial (along the 49th parallel from the Lake of the Woods to the shores of the Gulf of Georgia). On the south the frontier towards Mexico is formed by the Rio Grande del Norte (from its mouth to Fort Bliss) and an artificial line drawn (from Fort Bliss to the Pacific coast) along or near the 32nd parallel.

EXTENT.—This extensive dominion, previously about 3,000,000 square miles in area, was in 1867 increased by the acquisition of the large tract of country formerly known as Russian America, now the territory of Alaska, in the extreme north-west of the American continent. The total area of the United States, inclusive of the lakes and rivers (about 240,000 square miles), is estimated at 3,843,000 square miles,¹ which exceeds considerably that of Europe.

¹ About 65 times the area of England and Wales.

The distance across the continent under the 40th parallel is 2600 miles, and its average width from north to south is 1100; the greatest length is 2800 miles, and the greatest breadth 1600 miles.

COASTS.—The coast-line of the United States is, on the whole, regular and unbroken by any considerable inlets, such as those of Europe; its entire length, however, is upwards of 13,200 miles, equal to an average of 1 mile of coast to every 290 miles of area.

Of the total length, 3620 miles belong to the great lakes on the north, 3300 miles to the Atlantic and Mexican Gulf, and the remaining 6280 miles to the Pacific and Arctic Oceans.

1. **CAPIES.**—Cod, Hatteras, and Sable on the east; Flattery, Blanco, and Conception on the west; Cape Prince of Wales in Alaska.

2. **INLETS.**—Delaware and Chesapeake Bays on the east; Gulf of Mexico with Mobile and Orleans Bays on the south; Bay of San Francisco on the west.

3. **CHANNELS and STRAITS.**—Long Island Sound, between Long Island and the mainland; Pamlico Sound; Florida Strait, between Florida and the Bahamas; Juan de Fuca Strait, Gulf of Georgia, and Queen Charlotte Sound, between Vancouver Island and the mainland.

ISLANDS.—Rhode and Long Islands on the east, San Juan and other islands on the west.

SURFACE.—The Rocky Mountains, the Alleghany Mountains, the immense valley of the Mississippi river, and the great lakes belonging to the basin of the St. Lawrence, are the most important amongst the natural features of this part of the American continent.

1. Nearly the whole of the **Alleghany Mountains** are within the United States, and the plains that stretch along the Atlantic shores, between the mountain and the sea, are the oldest settled portions of the Union.

2. The **Rocky Mountains** stretch through the westwardly division of the United States, and attain an average elevation of between 7000 and 8000 feet, while Long's Peak, Pike's (or James) Peak, and others, reach 12,000 feet and upwards. In Colorado alone there are 25 peaks upwards of 14,000 feet high.

3. To the west of the Rocky Mountains is the *plateau of Utah*—an enclosed tableland similar to those of the Asiatic continent, watered by a system of rivers that have no outlet to the ocean. This plateau is bordered on its western side by a high mountain-range called the **Sierra Nevada**, the summits of which reach upwards of 10,000 feet, and are covered with perpetual snow. The valley of the Sacramento river is between the Sierra Nevada and a lower mountain-range which borders the Pacific Ocean.

4. The vast region intervening between the Rocky Mountains and the Alleghany system is the *Valley of the Mississippi*, a lowland plain of great natural fertility, within which is included the region of the prairies.

RIVERS.—The most important river of the United States is the Mississippi, with its numerous tributary streams. The *Mississippi* is navigable from the Gulf of Mexico nearly to its source, by the direct arm of the river, and by the *Missouri* branch to the point where that stream issues from the Rocky Mountains.

1. The eastward portion of the United States—that is, the plain along the Atlantic coast—includes all the rivers enumerated in page 291 as flowing into the Atlantic. The most important amongst them is the *Hudson*, from the fact of New York, the commercial metropolis of the Union, being situated at its mouth.

2. To the west of the Rocky Mountains, the United States includes the valleys of the *Colorado*, *Sacramento*, and *Columbia* rivers. The upper portion of the last-named stream, however, is within British Columbia.

LAKES.—Of the five great lakes belonging to the St. Lawrence basin, one—*Lake Michigan*—is wholly within the United States. The other four form part of the border between the United States and the British province of Canada.

CLIMATE.—So vast a territory as that of the United States necessarily comprehends great variety of climate and natural produce. In the southern portions of the Union—towards the peninsula of Florida and the shores of the Mexican Gulf—the heat is very great, and the productions of the soil are those of a sub-tropical region. In the middle and north the climate is temperate—the *average* heat not greater than that of the British Islands, though the extremes of summer and winter temperature are much more considerable. Intensely hot summers and severe winters characterise the cities on the Atlantic sea-board of the United States.

PRODUCTIONS.—The natural resources of this great territory are abundant and varied. The United States include many of the most productive and fertile portions of the American continent. Their mineral wealth is great, and their agricultural capabilities are almost boundless.

California—the most westwardly state, and (except Oregon) the only one that borders upon the Pacific—is only rivalled by Australia in the abundance of its gold-produce. The goldfields are within the valley of the Sacramento river. Since 1848, when they were first worked, the *goldfields* of California have supplied annually a quantity of gold exceeding in value £10,000,000 sterling, which is more than the previous yearly produce of the entire globe amounted to. The eastern division of the Union embraces (within the Alleghany region and the upper portion of the Ohio valley) a *coalfield* of vast extent, with abundance of *iron* and other metallic ores.

INHABITANTS.—The population of the United States amounted, in 1880, to 50,182,525, above six-sevenths of whom are of white or European race. The great bulk of these are of British descent, and their numbers (besides the rapid increase from natural causes) are constantly increased by immigration from the British Islands and elsewhere.¹ The English language is the prevailing tongue throughout the Union. There are, however, numerous settlers from Germany, Holland, France, and other countries of Europe.

Above 4,000,000 of the population of the United States belong to the Negro race, most of them in a condition of slavery until happily freed by the result of the civil war of 1861-65. There are but few of the aboriginal Indians left, little more than a quarter of a million within the whole of this immense territory.²

Education.—Education is general and well advanced in the north-eastern or New England States. In 1870, out of a total population of 38,600,000, 4,500,000 were unable to read, and 5,600,000 were unable to write. In the same year 7,200,000 children were attending school. There are a great number of higher schools and colleges. The oldest university (Harvard) was founded in 1636.

¹ At the beginning of the century the immigrants numbered only 3000 or 4000 a year. In 1840 the number was about 80,000, and in 1850, 300,000. From 1870 to 1880 (inclusive) 3,199,180 immigrants arrived, of whom 2,601,460 actually settled in the States. In 1880, out of 457,243 immigrants, 144,870

came from the United Kingdom, 99,706 from the Dominion of Canada, and 84,638 from Germany.

² In 1880 there were 255,998 Indians in the United States, of which 78,310 were in the Indian territory; the rest chiefly in New York State and the western territories.

Religion.—There is no established form of worship in the United States. The various forms of Christianity are represented by numerous followers, and the members of each church support its ministers by voluntary contributions.

INDUSTRY.—The culture of the soil forms the predominant pursuit with the population of the United States. The vast tracts of prairie-land are being rapidly brought under the plough, and the valley of the Mississippi is now occupied by an agricultural population. In the southern and south-western divisions cotton, rice, tobacco, and sugar—in its middle and northerly divisions maize, wheat, and other grains—constitute the objects of agricultural industry.

Cotton is the great article of produce, and its export (to Britain) is the most important branch of the foreign commerce of the States. South Carolina, Georgia, and portions of the adjacent states are the chief seat of the cotton-culture, which (as well as that of the *rice, tobacco, and sugar* grown within the Union) was formerly carried on exclusively by slave labour.¹

Manufactures.—The north-eastern states are the most manufacturing portions of the Union. It is there that population is most dense, and that the possession of coal and iron gives facilities for the pursuit of manufacturing industry.

Commerce.—The foreign commerce of the United States is immense, and is second in amount only to that of Britain. The American flag is seen in every part of the world, and American vessels still command a large share in the carrying-trade between distant regions. The exports of American produce—raw cotton being at the head of the list—employ a vast amount of shipping.

The commerce of the United States, as a whole, consists in the export of produce of the soil (cotton, rice, tobacco, corn, timber, &c.), and the import of manufactured goods. It is carried on to a vastly larger amount with Great Britain than with any other nation. The raw cotton of America is the material upon which the artisans of Manchester exercise their industry, and the prosperity of the manufacturing population of Great Britain is indissolubly bound up with that of the cotton-growers upon the American side of the Atlantic.² The internal trade of the country is greatly facilitated by upwards of 80,000 miles of railway.

Ports.—The principal ports are New York, Boston, Philadelphia, Baltimore, Charleston, Mobile, New Orleans, and San Francisco.

GOVERNMENT.—The United States form a federal republic. Each of the states composing the Union has its own government, while the whole unite in a general government for the purposes of the Union at large. The general government is administered by a President, who is elected for a term of four years. The legislative power belongs to an elective Congress, consisting of a Senate and a Chamber of Representatives.

Finance.—In 1880 the total *Revenue* amounted to £66,700,000, and the *Expenditure* to £53,500,000. In the same year the *Public Debt* amounted to £423,900,000.

Army and Navy.—The standing *army* numbered in 1880 nearly 25,000 men. The *navy* consists of about 80 men-of-war, of which 24 are ironclads.

¹ Prior to the civil war of 1861-65, consequent on the attempted secession of the southern or slaveholding states, slavery existed as a recognised institution in fifteen of the states. The names of the former slave states are Delaware, Maryland, Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Tennessee, Kentucky, Missouri, and Texas.

² In 1880 the total value of the *imports* was £133,590,660, and the *exports* £167,126,719. More than one-half the exports were sent to the United Kingdom. In 1879 the exports from the United States to Great Britain amounted to £91,818,205, and the imports of British produce into the States to £20,321,990. The two staple articles exported to this country, cotton and raw cotton, amounted in 1879 to £33,091,926 and £25,949,967 respectively.

DIVISIONS and TOWNS.—The United States of North America are a confederation of states, associated under a general government for common purposes, while each state has a government of its own. Originally only thirteen in number, they have become increased (by the admission of fresh members into the Union) to thirty-eight states, besides having attached to them ten territories. The population of the latter is at present too small to allow of their being admitted into the Union as states.

The thirteen states which originally composed the Union were all within the eastern portion of the territory now known as the United States, that is, along the line of the Atlantic coast. These older portions of the Union are distinguished, according to their relative position, as the North-Eastern, Middle, and Southern States. The states of later formation, within the Mississippi valley, are known as the Western States. Three of the states—California, Oregon, and Nevada—are to the westward of the Rocky Mountains.

1. The **NORTH-EASTERN STATES** are six in number :—

States.	Area in Square miles.	Population (1880).	Towns.
MAINE, . . .	35,000	648,945	Augusta, ¹ Portland.
NEW HAMPSHIRE, . . .	9,289	347,784	Concord, Portsmouth.
VERMONT, . . .	10,212	332,286	Montpelier, Burlington.
MASSACHUSETTS, . . .	7,800	1,783,086	Boston, Lowell, Springfield.
RHODE ISLAND, . . .	1,306	276,528	Providence, Newport.
CONNECTICUT, . . .	4,750	622,683	Newhaven, Hartford.

Boston (population, 362,565²), on the coast of Massachusetts, is the largest city of the New England States, and is also one of the most important emporiums of commerce in the Union. The small town of **Plymouth**, to the south-east of Boston (and also in the state of Massachusetts), is sacred in American story as the spot where the "pilgrim-fathers"—exiles from the shores of England—first landed on the coasts of the New World in 1620. **Portland** and **Providence**, both of them maritime cities, are also great seats of trade. None of the other cities in the New England States are of large size, though many of them are flourishing seats of commercial or manufacturing industry.

2. The **MIDDLE STATES** are five in number :—

States.	Area in Square Miles.	Population (1880).	Towns.
NEW YORK, . . .	47,000	5,083,173	Albany, New York, Troy, Buffalo.
NEW JERSEY, . . .	8,320	1,130,892	Trenton, Newark.
PENNSYLVANIA, . . .	46,000	4,282,738	Harrisburg, Philadelphia, Pittsburg.
DELAWARE, . . .	2,120	146,654	Dover, Wilmington.
MARYLAND, . . .	11,124	935,139	Annapolis, Baltimore.
District of COLUMBIA,	64	177,638	Washington.

New York³ is the commercial metropolis of the United States, and the largest city in the New World. It occupies a commanding position at

¹ The town that is named first in the case of each state ranks politically as its capital, but does not always represent the largest town in the state.

² The population of the states and towns is taken from the census returns of 1880.

³ Named after the Duke of York (James II.)

the mouth of the river Hudson, and contains (with its suburb of Brooklyn, at the extremity of Long Island, from which it is divided by an arm of the sea) considerably more than one and three quarter million inhabitants.¹ **Albany** is also on the Hudson, 140 miles above its mouth. **Buffalo**, one of the most thriving of American cities, is at the eastern extremity of Lake Erie, where the river Niagara issues from the lake.

Philadelphia is the second city of the Union in size and population (846,984). It stands on the junction of the rivers Delaware and Schuylkill, some miles above the estuary of the Delaware river. **Pittsburg**, beyond the Alleghany Mountains (at the junction of two streams which unite to form the Ohio river), is within the great coalfield of the United States, and is the seat of extensive iron and other hardware manufactures. **Baltimore** ranks fifth in population (333,190) among American cities, and has a great maritime trade. It stands on the west side of Chesapeake Bay, at the head of a small inlet.

The district of Columbia is a small tract adjoining the State of Maryland, set apart for the use of the federal government. It contains **Washington** (population, 147,000), the political capital of the United States. Washington stands on the river Potomac. It is not otherwise important than as the seat of the general government of the Union.

3. The **SOUTHERN STATES** are six in number :—

States.	Area in Square Miles.	Population (1880).	Towns.
VIRGINIA (Eastern),	38,348	1,512,203	Richmond, Petersburg.
VIRGINIA (Western),	23,000	618,193	Wheeling.
NORTH CAROLINA, .	50,704	1,400,000	Raleigh, Wilmington.
SOUTH CAROLINA, .	34,000	995,706	Columbia, Charleston.
GEORGIA, ...	58,000	1,538,983	Milledgeville, Savannah.
FLORIDA, ...	59,248	266,566	Tallahassee, St. Augustine.

Richmond and **Charleston** are the two largest cities of the Southern States, and the latter of them is the seat of very extensive commerce. **Richmond** (population, 51,000) stands on James river; **Charleston** (population, 49,000) at the head of a small inlet on the Atlantic coast. Both cities suffered very severely during the war of 1861–65, when Richmond became the capital of the ephemeral "Confederacy," and was long the centre of military efforts on a vast scale, directed to its subjugation.

4. The **WESTERN STATES** are eighteen in number. Ten of them are North-Western and eight South-Western.

The North-Western States are :—

States.	Area in Square Miles.	Population (1880).	Towns.
MINNESOTA, . . .	83,531	780,807	St. Paul.
WISCONSIN, . . .	53,924	1,315,386	Madison, Milwaukee.
IOWA, ...	55,045	1,624,463	Iowa City, Burlington.
INDIANA, ...	33,809	1,978,358	Indianapolis.
ILLINOIS, ...	55,410	3,078,636	Springfield, Chicago.
MICHIGAN, ...	56,451	1,634,094	Lansing, Detroit.
OHIO, ...	39,963	3,197,794	Columbus, Cincinnati.
KANSAS, ...	81,318	995,335	Topeka.
NEBRASKA, ...	75,995	452,432	Omaha.
COLORADO, ...	104,500	194,469	Denver.

¹ Census 1880, New York, 1,206,590; Brooklyn, 586,689; total, 1,793,279.

The South-Western States are :—

States.	Area in Square Miles.	Population (1880).	Towns.
KENTUCKY, . .	37,630	1,648,599	Frankfort, Louisville.
TENNESSEE, . .	45,600	1,542,463	Nashville.
ALABAMA, . .	50,722	1,262,344	Montgomery, Mobile.
MISSISSIPPI, . .	47,156	1,131,899	Jackson, Columbus.
MISSOURI, . .	65,350	2,169,091	Jefferson, St. Louis.
LOUISIANA, . .	41,346	949,263	New Orleans.
ARKANSAS, . .	52,356	802,564	Little Rock.
TEXAS, . .	274,356	1,597,509	Austin, Galveston.

New Orleans (population, 216,140), at the mouth of the Mississippi, is largest among the cities of the Western States. Its position renders it the outpost for the immense valley of the Mississippi, and hence gives it great commercial importance. But its situation, amongst the swamps of an almost tropical region, is one of the most unhealthy in the world.

Mobile, at the head of an inlet of the Gulf of Mexico, is also the seat of considerable maritime trade. The chief export is raw cotton.

St. Louis (population, 350,522), on the Mississippi; **Cincinnati** (population, 255,708), on the river Ohio; and **Chicago** (population, 503,000), on the south-western shore of Lake Michigan, are among the largest inland cities of the United States. The last-named of them has grown from a hamlet in the wilderness into a populous city with marvellous speed.

5. The **PACIFIC STATES** (west of the Rocky Mountains) are :—

States.	Area in Square Miles.	Population (1880).	Towns.
CALIFORNIA, .	188,911	864,686	Sacramento City, San Francisco.
OREGON, .	95,274	174,767	Salem.
NEVADA, .	81,530	62,265	Carson, Austin.

San Francisco (population, 233,956), the largest city of California, is at the head of a fine bay of the same name, into which the river Sacramento falls. San Francisco is united by the *Pacific railway* with New York and other ports on the Atlantic seaboard.

6. The **TERRITORIES**, nine in number, are :—

Territories.	Area in Square Miles.	Population (1880).	Towns.
WASHINGTON, . .	69,094	96,120	Olympia.
IDAHO, ...	86,294	32,611	Boise City.
MONTANA, . . .	143,776	39,157	Virginia.
DACOTAH, . . .	150,932	134,502	Yankton.
WYOMING, . . .	97,883	20,788	Benton.
UTAH, ...	84,476	143,907	Salt Lake City.
ARIZONA, . . .	113,916	40,441	Tucson.
NEW MEXICO, . .	121,201	118,430	Santa Fé.
ALASKA, ...	577,390	30,146	Sitka.

The towns in the above are at present of small size. **Salt Lake City** is remarkable as the head seat of the Mormon community. It stands on a *small* river which flows from the lake of Utah into the Great Salt Lake.

QUESTIONS ON THE UNITED STATES.

1. Point out upon the map the extent of the United States, and name the boundaries.
2. Name the great natural features of the United States.
3. Where is the plateau of Utah? What mountain-chain borders on the west?
4. Mention the principal rivers within the United States.
5. Which of the great lakes is wholly within the United States?
6. Say what you know concerning the climate of the United States.
7. For what article of natural produce is California noted?
8. In what part of the United States are coal and iron found?
9. From what nation are the great majority of the population of the United States descended? What language generally prevails throughout the Union?
10. What other races beside the European are included amongst the population of the United States?
11. Name some of the chief productions of the United States.
12. In which part of the Union is cotton principally grown?
13. In which part is manufacturing industry most prevalent?
14. What forms the distinguishing feature in the commerce of the United States, as to the respective exports and imports?
15. Under what kind of government are the United States?
16. How many states does the Union comprehend at the present time? How many did it embrace when first formed?
17. How are the states that lie along the Atlantic coast divided?
18. Name the six North-Eastern (or New England) States.
19. Name the largest among the cities of the New England States.
20. In which states are the following towns, respectively;—Portland, Portsmouth, Providence, and Newhaven?
21. For what is the town of Plymouth noteworthy? In what state is it situated?
22. Name the five Middle States.
23. What city constitutes the commercial metropolis of the United States? At the mouth of what river is it?
24. Point on the map to the following places;—Philadelphia, Baltimore, Buffalo, Pittsburg, New York, and Washington.
25. For what circumstance is Washington noteworthy? On what river does it stand?
26. Name the five Southern States, and point to the place which they occupy (as a whole) upon the map.
27. What two places are largest among the cities of the Southern States?
28. How many of the states are comprehended under the name Western States? Name as many as you can remember.
29. Which is largest among the cities of the Western States? At the mouth of what river is it?
30. In what states are the following;—St. Louis, Cincinnati, and Chicago? Point to each upon the map.
31. Which of the United States borders on the Pacific? What is the name of its largest city?
32. How many territories belong to the Union? Name some of them.

MEXICO.

Mexico includes the northern and larger portion of the isthmus which unites North and South America.

BOUNDARIES.—Mexico is bounded on the *north* by the United States, on the *west* and *south* by the Pacific, and on the *east* by the waters of the Mexican Gulf. To the south-eastward, it adjoins the narrow region known as Central America.

EXTENT.—The Mexican portion of the isthmus varies in width from 500 miles in the north to 140 in the south. Its area is estimated at 744,000 square miles, or about twelve times that of England and Wales.

COASTS.—In general low and unbroken. The principal inlets are Gulf of Campeachy on the east, and Gulfs of California and Tehuantepec on the west.

SURFACE.—Mexico consists of a high plateau, bordered by a narrow strip of low land upon either side. This low plain is generally of greater breadth upon the side of the Gulf of Mexico than upon that of the Pacific Ocean. From the low coast-plain the country rises towards the interior by a succession of terraces, one above another, until at length the summit of the tableland is reached. The higher parts of this vary from 6000 to 9000 feet above the sea; the plain on which the city of Mexico stands is upwards of 7000 feet.

The surface of the Mexican plateau is diversified both by continuous chains of high ground and by isolated mountain-peaks, many of which are volcanoes. Amongst the latter, the mountain called *Popocatepetl* is estimated to reach a greater height than any other in North America. Another well-known peak (towards the eastern border of the tableland) is *Orizaba*, which is not greatly inferior in altitude to the former.

RIVERS.—Mexico has no rivers of any considerable magnitude. Some of the streams which water portions of the interior plateau terminate in salt lakes, without reaching the sea.

The *Rio Grande* forms the boundary between Mexico and the state of Texas. Of the rivers within Mexico the largest is the *Santiago*, which drains the central part of the country into the Pacific.

Lakes.—The principal lakes are the *Chapala*, through which the *Santiago* flows; *Cayman*, in the north; and the small lake of *Tezcuc*, near Mexico.

CLIMATE.—The climate of Mexico is regulated by the conditions of its physical geography described above. The low plains which stretch along the coast are intensely hot, and are generally unhealthy. The interior plateaus enjoy a moderate temperature, and the various elevations which are passed through in the ascent to them exhibit a progressive diminution of heat. In general, elevations above 2000 feet are free from the unhealthy influences which belong to the damp and heated atmosphere of the coast.

NATURAL PRODUCTIONS.—The natural productions are rich and varied, alike in the mineral and the vegetable kingdoms, but they are turned to little account.

1. *Gold* and *silver*, with numerous other metallic ores, are extensively distributed. A great many mines are still worked, but the mineral produce of Mexico in the present day is inconsiderable compared to its former amount.

2. A rich variety of fruits, medicinal herbs, and other vegetable productions are native to Mexico. One of the most characteristic is the *cochineal-plant*, a species of cactus upon which the cochineal-insect (valued for its red dye) thrives. *Vanilla*, *cocoa*, and *jalapa* are native to Mexico. *Tobacco*, *coffee*, *indigo*, and *sugar* are grown; the first-named is indigenous to the soil.

INHABITANTS.—Mexico has a total population of about 9,500,000, above half of whom belong to the native Indian race. Not more than one million are whites, exclusively of Spanish descent. The remainder are *mestizoes*, that is, of mixed Indian and Spanish blood.

Religion and Education.—The Roman Catholic religion is uniformly followed, and public education is very backward.

INDUSTRY.—The social condition of the Mexican population is in every respect demoralised, the political state of the country disorganised, and all industrial pursuits are hence at the lowest ebb. Indeed industry, upon a scale of national importance, can scarcely be said to exist. Some export of precious metals, and, to a limited amount, of cochineal, indigo, hides, mahogany, and sugar takes place. But the trade has for a considerable time past been declining in amount.

The chief article of export from Mexico is *silver*, of an estimated annual value of £3,000,000. The total exports, however, only amount to £5,000,000, and the total imports (consisting mainly of cotton and linen goods, iron and machinery) to £5,500,000. The total trade with Great Britain only amounts to about £1,200,000 (exports, £500,000; imports, £700,000).

Ports.—The principal ports are Vera Cruz, Tampico, and Campeachy, on the Mexican Gulf; and Mazatlan and Acapulco, on the Pacific coast.

Internal Communication.—The *roads* are bad and scarcely anywhere adapted for carriages. The principal line of *railway*, 300 miles in length, connects the capital with the port of Vera Cruz. A railway across the Isthmus of Tehuantepec is now (1881) in course of construction.

GOVERNMENT.—Mexico forms a federal republic, under an elective president; the nominal rule of an Austrian prince, placed on the throne in 1864, with the title of Emperor, having proved but of brief duration.

One revolution has succeeded another, and military despotism, alternating with periods of perfect anarchy, has combined, with the influences of an oppressive priesthood, to destroy the prosperity of this fine country.¹

DIVISIONS and TOWNS.—Mexico until a recent date formed a nominal confederation of states, twenty-two in number. It has recently been divided into fifty departments, named in most cases after the towns which they include. Few of the latter are of any considerable size. The city of Mexico, which greatly exceeds any other in population, is the capital.

The city of **Mexico** (*population*, 230,000) stands on the interior tableland, nearly midway between the two oceans, and at an elevation of more than 7000 feet above their waters. It was already a seat of empire—the capital of the native Aztec monarchy—when Cortez reduced Mexico, under the Spanish arms, in the early part of the 16th century.

Vera Cruz (*population*, 9000) and **Acapulco** (*population*, 3000)—the one on the Atlantic coast, the other upon that of the Pacific—are the chief seaports of Mexico. Vera Cruz occupies an unhealthy situation, upon the low shore of the Gulf of Mexico. **Tampico**, farther to the northward, upon the same line of coast, has some share in Mexican commerce, especially in exporting the produce of the mines. Acapulco, on the Pacific, possesses one of the finest harbours in the world. **Mazatlan**, which is also on the Pacific (near the entrance of the Gulf of California, upon its eastern side), has been a rising port within recent years.

Very few among the other cities of Mexico possess any other than local importance. The whole country exhibits a vast decline from its flourishing condition during the 16th and 17th centuries, when the treasures of the New World were poured into Europe from its shores. But it contains abundant

¹ The *expenditure* has for a long time exceeded the *revenue*. Estimated revenue (1880-81), £3,562,000; expenditure, £4,625,000.

Diplomatic relations between Mexico and Great Britain were broken off in 1867, after the execution of the Emperor Maximilian.

indications of former prosperity, shown in the magnificent architectural decorations of many of its cities, their fine cathedrals, convents, and other structures. There are also in various parts of Mexico monuments of earlier date which bear testimony to the partial civilisation attained by the Indians prior to the Spanish conquest. Many of these monuments bear considerable resemblance to the ruins that are so numerous strewn over the plains of Western Asia, and, like them, are gazed on with wonder, not unmixed with awe, by the present degenerate race of natives.

The long and narrow peninsula of California, on the western side of the gulf to which its name is given, forms one of the territories that are attached to Mexico. The name of Lower California is now properly given to this region, in order to distinguish it from the gold-producing California, which forms one of the United States.

YUCATAN, also a peninsula, adjoining the opposite extremity of Mexico, was a member of the former Mexican confederation, but on several occasions assumed the rank of a distinct state. It contains the towns of **Merida** and **Campeachy**, the former of which is the capital.

CENTRAL AMERICA.

The name of **CENTRAL AMERICA** is given to the narrow tract of country which extends from Mexico to the Isthmus of Panama. This region is washed by the waters of the Caribbean Sea and the Pacific Ocean on either side, and no part of it is far removed from one or other of the great oceans.

BOUNDARIES.—Central America is bounded by Mexico on the north, the Caribbean Sea on the east, and the Pacific Ocean on the west and south.

EXTENT.—The area of this territory is estimated at 186,000 miles, or about three times that of England and Wales. Its breadth varies from 300 miles in the centre to 70 in the south.

SURFACE.—Central America (like Mexico) consists of interior plateaus, with low plains adjoining the coast.

The plateaus are inferior in height to those of Mexico, but they are bordered on the western side by high mountains, many of which reach an altitude of 11,000 feet and upwards. Several of these mountains are active volcanoes. The low plain along the Atlantic coast is of considerable extent, especially that part of it which is called the *Mosquito coast*.

RIVERS.—The rivers of Central America are of little importance, excepting in so far as they afford the means of navigation into the interior, and of thereby effecting a nearer approach to communication between the two oceans.

The river *San Juan*, which enters the Caribbean Sea at Greytown (or San Juan de Nicaragua), has hence become of some note. It issues from the large *Lake of Nicaragua*, the western shores of which approach within eleven miles of the Pacific. Steamers navigate the river and lake, and this route has formed of late years one of the most frequented lines of communication between the countries that lie upon the opposite sides of the American continent. The smaller (but still extensive) lake of Managua or Leon lies to the north-west of Lake Nicaragua, and discharges a stream into it.

CLIMATE and PRODUCTIONS.—The climate and natural productions of Central America bear a general resemblance to those of Mexico. The coasts are hot and unhealthy, while the elevated interior is comparatively temperate. The productions of the native forests are of high value.

INHABITANTS.—The total population of Central America is estimated at about 2,500,000.

Three-fourths of the population of the Central American states are either Indians or mestizoes. The whites, who are everywhere the ruling race, are almost uniformly of Spanish descent. Many of the Indians now speak the Spanish language.

INDUSTRY.—The agriculture of these countries is in a backward condition, and the produce of trifling amount, comparatively, to the capabilities which the whole region possesses. This is in great measure the result of political insecurity and frequent revolutionary changes.

Indigo, cochineal, coffee (the last chiefly from Costa Rica), with limited quantities of *sugar, hides, Nicaragua wood, mahogany, balsam, and sarsaparilla*, are the exportable produce.

DIVISIONS.—Five distinct states and one British colony are included within Central America. These with their chief towns are shown in the following table :—

States.	Chief Towns.	States.	Chief Towns.
GUATEMALA, .	{ New Guatemala, Old Guatemala, Istapa, St. Thomas, Salvador. Belize.	HONDURAS, .	{ Comayagua, Truxillo, Omoa. Managua, Leon, Granada. San José.
SAN SALVADOR, .		NICARAGUA, .	
BRITISH HON- DURAS, }		COSTA RICA, .	

1. **GUATEMALA** is the most northerly of these states, and comprises an area of about 41,800 square miles,¹ with a population of about 2,000,000, only one-fourth of whom are of European descent. The capital, **New Guatemala** (population, 45,000), is of larger size than any other place in Central America. The older city of that name—the former capital of the state—was abandoned as the seat of government from its liability to earthquakes, as well as from the injury to which it is exposed from the eruptions of neighbouring volcanoes. The whole of Central America is more or less liable to earthquakes, which are sometimes of great violence.

2. **SAN SALVADOR** is the smallest of the states of Central America, its area being only 9500 square miles, only about one-sixth that of England and Wales. It extends along the Pacific coast for about 170 miles, and inland for about 40 miles to the frontiers of Honduras. Its population is estimated at 600,000, who are largely engaged in agriculture, manufactures, and, within recent years, mining.² The capital, **San Salvador**, was partially destroyed by an earthquake in 1873. The old capital was entirely destroyed in 1854. The principal port is **La Libertad**, on the coast, 15 miles south-west of the capital.

¹ About five and a half times that of Wales. ² Silver at Tabasco and iron near Santa Anna.

3. **BRITISH HONDURAS** or **BELIZE** is a possession of the British Crown, and is bounded on the east by the sea, and on all other sides by Guatemala. British Honduras has an area of 14,000 square miles, and about 25,000 inhabitants, mostly negroes. Its chief produce is mahogany. The capital of the settlement is the town of **Belize** (*population*, 66,000), at the mouth of a river of the same name.

4. **HONDURAS** lies between Guatemala and Nicaragua, and extends from the Gulf of Honduras to the Gulf of Conchagua. Its area is estimated at 39,600 square miles, and its population at 250,000, an average of only 9 per square mile. The capital of the republic is **Comayagua**. The chief ports are **Truxillo** and **Omoa**, both on the Gulf of Honduras.

5. **NICARAGUA** is the largest of these states, having an area of 58,000 square miles. Its population, however, only amounts to 250,000, of whom but a small number are of European descent. This state is naturally the richest in Central America, but long-continued political troubles have hindered any great progress. The present capital is **Managua**, which is situated on the slope of an active volcano, near the southern shore of Lake Managua. **Leon**, the old capital, is now partly in ruins, but has still about 25,000 inhabitants. **Granada**, on the north-western border of Lake Nicaragua, is one of the oldest cities in Central America. At the mouth of the San Juan river is the port of **Grey Town** or San Juan de Nicaragua.

6. **COSTA RICA**, the most southerly of these states, extends across the isthmus, and has an area of 26,000 square miles¹ and a population of about 190,000. The chief produce is coffee. **San Jose** is the capital. The chief ports are **Lunon**, on the Atlantic, and **Punta Arenas**, on the Pacific. A railway across the isthmus is now being constructed.

QUESTIONS ON MEXICO AND CENTRAL AMERICA.

1. Name the boundaries of Mexico, and point them out upon the map.
2. Give some account of the natural features of Mexico.
3. What kind of climate has Mexico? In what way is this affected by the characteristic features of its physical formation?
4. Say what you know concerning the natural productions of Mexico, naming some of its characteristic plants.
5. To what races does the population of Mexico belong?
6. What is the general condition of industry in Mexico at the present time? What articles are exported?
7. Point on the map to the city of Mexico. By what is its site distinguished?
8. Name the two chief seaports of Mexico, on the Atlantic and Pacific coasts, respectively, and point them out on the map.
9. Where are the following—Tampico, Mazatlan, Lower California, Yucatan, and Campeachy?
10. What kind of government is Mexico nominally under? What religion is uniformly followed?
11. Where is Central America? Point to its limits on the map.
12. By what seas is Central America bounded on either hand? What bay washes part of its eastern shore?
13. What are the characteristic natural features of this region?
14. What two lakes does Central America contain? What river issues from the larger of the two?
15. Say what you know concerning the population of this region.
16. What articles are exported from Central America?
17. How many distinct states are comprehended within Central America? Name them.
18. State what you know of Guatemala and San Salvador.
19. Where is British Honduras? What is the name of its chief town?
20. What article of produce does British Honduras furnish?
21. Give some particulars of Honduras, Nicaragua, and Costa Rica.

¹ The area of the above states compared with that of England and Wales, are—*British Honduras*, one-fourth; *Honduras*

two-thirds; *Costa Rica*, one-half; and *Nicaragua*, about 300 square miles less.

THE WEST INDIES.

The WEST INDIES are an insular region of large extent, situated amidst the waters of the Atlantic Ocean, and occupying a like place in the western half of the globe to that which the East Indian Archipelago fills in the eastern hemisphere.

BOUNDARIES.—The waters of the open Atlantic wash the shores of the West Indian Islands on the eastern side ; on the west are the Gulf of Mexico and the Caribbean Sea.

DIVISIONS.—The numerous islands of this region are embraced under three great divisions—the Greater Antilles, the Lesser Antilles (or Windward and Leeward Islands), and the Bahama Islands.

The Greater Antilles consist of Cuba, Hayti, Jamaica, and Porto Rico ; the Lesser Antilles comprehend the long chain of islands that stretch, in a curved line, from the eastern extremity of Porto Rico to the mainland of South America. The Bahama Islands are the most northerly portion of the archipelago.

EXTENT.—The total area of the West Indian Islands is estimated at 95,000 square miles,¹ of which the Greater Antilles include 80,000 square miles.

NATURAL FEATURES.—All the larger islands of the West Indies are more or less mountainous. So also, with few exceptions, are the islands belonging to the Windward and Leeward chains. The Bahama Islands, on the contrary, are almost wholly level.

In Cuba, the largest island of the West Indies, the mountains reach nearly 8000 feet above the level of the sea, and the mountains in the island of Hayti exceed that altitude. The *Blue Mountains* of Jamaica are upwards of 7000 feet. Fertile plains and watered valleys alternate with the high grounds. Many of the smaller islands exhibit peaks which rise to 3000 feet, and some even double that altitude.

CLIMATE.—The climate of the West Indies is thoroughly tropical. With the exception of a part of the Bahama chain, the entire archipelago is within the Torrid Zone, and exhibits the usual characteristics of that belt of the globe. But the average temperature is not so high as in the correspondent latitudes of the eastern hemisphere.

The dry and rainy seasons follow one another with unfailing regularity, and the quantity of rain is excessive—surpassing (in the case of some of the smaller islands) that which is experienced in any other part of the globe. It is only during the rains that the climate is unhealthy.

PRODUCTIONS.—The most valuable productions of this region are those which belong to the vegetable world.

Manioc, arum (or taro²), *sweet potato, arrowroot, maize, pine-apple, pimento,*³ *ginger, cocoa, vanilla,* the *tamarind, guava, cocoa-nut-palm, indigo,* and *tobacco* are indigenous to the soil. The *sugar-cane, coffee, cocoa, plantain,* and *bread-fruit* all flourish.

¹ Nearly twice the area of England.

² This is a tuberous root, as also is the batata or sweet potato. The taro furnishes a principal article of food to the inhabitants

of the Sandwich Islands, and many other of the Pacific groups.

³ Pimento is more familiarly known as all-spice.

INHABITANTS.—The population of the West Indies probably amounts, in the total, to nearly three millions, an average of over thirty persons to the square mile.

Two-thirds of the population of the whole region are Negroes, the remaining third whites and Mulattoes, the latter of mixed European and Negro blood. The white population is most numerous in Cuba, where it amounts to considerably more than a third of the whole.

INDUSTRY.—The chief commercial productions of the West Indies are *sugar, rum, molasses, and coffee*; with *cocoa, tobacco, cotton, spices* (chiefly pimento and ginger), to a smaller amount.

Three of the above—sugar, rum, and molasses (or treacle)—are the produce of the sugar-cane, the culture of which was introduced into this region by the Spaniards at an early date after the discovery of the New World. Sugar, coffee, and tobacco are throughout the West Indies the prime objects of industrial regard. In Cuba, which supplies annually an immense quantity of sugar, the culture of these staples of West Indian produce was formerly carried on exclusively by slave-labour.¹

ISLANDS.—Nearly the whole of the West Indian islands are in the possession of European nations:—

1. SPAIN possesses the islands of Cuba² and Porto Rico.
2. GREAT BRITAIN possesses, among the large islands, Jamaica, and, among the smaller members of the archipelago, the islands of Trinidad, Tobago, Barbadoes, Grenada, St. Vincent, St. Lucia, Dominica, Antigua, Barbuda, Montserrat, Nevis, St. Christopher, three of the Virgin Islands, and the whole of the Bahamas.
3. FRANCE possesses Martinique and Guadeloupe, with some smaller dependencies of the latter island, St. Bartholomew, and also a part of the island of St. Martin.
4. HOLLAND possesses part of St. Martin, with the islands of Saba, St. Eustatius, Curaçao, Oruba, and Buen Ayre; the three last-named situated near the northern shores of South America.
5. DENMARK possesses Santa Cruz, the largest of the Virgin Islands, together with the two smaller islands of St. Thomas and St. John, lying farther to the northward.

(1.) **CUBA** is the largest of the West India islands, and has an *area* of 43,000 square miles, which is only one-seventh part less than the size of England. A chain of mountains extends through the interior of the island, culminating in a transverse range, the *Sierra Maestra*, in the south-east. The extensive plains on either side of the central and terminal ridges are, on the whole, well watered, and, where properly cultivated, exceedingly fertile, producing sugar, tobacco, coffee, cotton, indigo, maize, &c. At the last census the population amounted to nearly 1,400,000, of whom 400,000 were free Negroes, 700,000 whites, and the rest slaves and Chinese. The capital, **Havannah**, situated on the north side of the island, is the largest city in the West Indies. **Matanzas**, east of Havannah, is the second city on the island. Cuba contains besides numerous flourishing towns and ports.

¹ A bill, passed in 1879 for the gradual abolition of slavery in Cuba, provides that all slaves shall be emancipated (according to age) on or before September 17, 1890.

² Cuba, the "Queen of the Antilles," was

discovered by Columbus in 1492, and was first settled by the Spaniards in 1511. A formidable insurrection broke out in the island in 1868, and was not finally suppressed until the end of 1876.

PORTO RICO¹ has an *area* of 2970 square miles, about half the size of Yorkshire, and a *population* of 500,000, more than half of them whites. Its chief town is **San Juan** (*population*, 50,000), on the north coast.

2. Of the British possessions in the West Indies **JAMAICA**² is by much the most important. Its *area* is 4300 square miles, which is about four-fifths that of Yorkshire. The *Blue Mountains* traverse the centre of the island from west to east, culminating in Western Peak, 7300 feet above the sea. There are numerous rivers, but only one, the *Black River*, is navigable, and that only for boats. The productions include sugar, rum, molasses, coffee, allspice (or pimento), and other tropical produce. The produce of the island is much less now than formerly, prior to the emancipation of the Negroes, but is still considerable. **Kingston**, on the south coast, is the capital and chief seat of the commerce of Jamaica; **Spanish Town**, the former capital, is in the interior, to the west of Kingston.

Among the smaller islands of the British West Indies, those which extend from Trinidad to St. Lucia (inclusive) are called the *Windward Islands*. The names of their chief towns are given in the following table :—

Islands.	Towns.	Islands.	Towns.
BARBADOS, . .	Bridgetown.	GREENADA, . .	St. George.
TRINIDAD, . .	Port of Spain.	ST. VINCENT, . .	Kingstown.
TOBAGO, . .	Scarborough.	ST. LUCIA, . .	Castries.

BARBADOS³ is the most important of these islands, and ranks next in value to Jamaica among the British possessions in this region. It is the most easterly of the West India Islands, and has an area of 166 square miles, with a population of about 180,000. **Trinidad** is the largest of the Lesser Antilles, and the most southerly of the West India Islands. Trinidad contains extensive deposits of asphalt, which is now largely exported. **Tobago**, about 20 miles north-east of Trinidad, is for the most part covered with forests. **Grenada** is a mountainous and beautiful island. Nearly two-thirds of its surface is under cultivation. The *Grenadines*, south of Grenada, are politically attached to that island. **St. Vincent**, about 95 miles west of Barbados, is noted for its volcanic *Soufrière*, which was in eruption in 1812. **St. Lucia** lies about 25 miles north of St. Vincent, and is also volcanic. *Sugar* is the staple product.

The *Leeward Islands* are those that extend from Dominica to the group of the Virgin Islands, namely :—

Islands.	Towns.	Islands.	Towns.
ANTIGUA, . .	St. John.	ST. CHRISTOPHER,	Basse-terre.
BARBUDA, . .		VIRGIN ISLANDS :—	
DOMINICA, . .	Roseau.	Tortola, . .	Road Town.
MONTserrat, . .	Plymouth.	Virgin-gorda, . .	
NEVIS, . .	Charlestown.	Anegada, . .	

¹ **Porto Rico** was discovered by Columbus in 1493, and has since remained a Spanish possession. Devastated by a hurricane in 1876.

² **Jamaica** (from *Xaymaca*, land of wood and water) was discovered by Columbus and first settled by the Spaniards in 1509. In 1655 it was taken by an English fleet sent

out by Cromwell, and was formally ceded in 1670. In 1864-5 there were serious disturbances, which were sternly repressed by Governor Eyre.

³ Barbados was first settled by the English in 1625. Its governor also controls the administration of the other Windward Islands.

ANTIGUA¹ is the most important and productive island of the Leeward chain. Its area is about 108 square miles, and its population (with Barbuda) about 40,000. Although there are no rivers, the greater portion of the island is under cultivation, and a considerable quantity of *sugar*, *rum*, and other West Indian produce is exported. **Barbuda**, 30 miles north of Antigua, forms a dependency of that island. **Dominica**, the largest of the Leeward Islands, is mountainous and well watered, but only a small portion is under cultivation. **Montserrat** is about 30 miles south-west of Antigua. About a third of its surface is cultivated. *Sugar* is the staple export. **Nevis** is a single mountain rising gently to a height of 3200 feet above the sea. **St. Christopher** or **St. Kitts**, about 45 miles west of Antigua, contains an extinct volcano, *Mt. Misery* (4100 feet). **Anguilla**, 60 miles to the north-west, is a dependency of St. Kitts. Of the Virgin Islands, only the three named in the table belong to the British; the rest belong to Denmark and Spain.

The **BAHAMA ISLANDS** include an immense number of islets and rocks, only the larger of which are inhabited. Unlike the other portions of the West Indies, they are low, and are based upon coral reefs. The navigation of the surrounding seas is extremely dangerous. Cattle and salt are their chief articles of produce. The chief town is **Nassau**, which is on the island of New Providence, in the centre of the group.

One of the islands of the Bahama group—probably that called Watling Island—was the first land seen by Columbus in the New World on the occasion of his memorable voyage of discovery in 1492.

* * The **BERMUDA ISLANDS**, situated far out in the Atlantic Ocean, at a distance of about 600 miles to the south-eastward of Cape Hatteras, the nearest point of land, belong to Britain.

The Bermudas are a group of low islets and rocks, based upon a coral reef. Their climate is warm and moist. It is, however, not unhealthy, though relaxing; and is distinguished by remarkable uniformity of temperature. The islands contain about 12,000 inhabitants. Their principal article of produce is arrowroot of the finest quality. The chief town is **Hamilton**, which is situated upon Long Island, the largest of the group.

3. The island of **MARTINIQUE** lies intermediate between St. Lucia and Dominica, and has an area of 380 square miles. Its largest town is **St. Pierre**, but **Port Royal** ranks as the capital.

GUADALOUPE² is north of Dominica. It consists of two portions, divided by a narrow strait. The town of **Basse-terre**, on the more westwardly of these divisions, is the capital.

ST. BARTHOLOMEW, a small island lying south-east of St. Martin, formerly belonged to Sweden, but was restored to France in 1877.

4. The islands of **SABA** and **EUSTATIUS**, both of small size, are to the north-west of St. Christopher. **ST. MARTIN**, which is divided between the possessions of France and Holland, is farther to the northward.

¹ Antigua was discovered by Columbus in 1492, and has been a British possession since 1666. Antigua and the other Leeward Islands constitute, since 1871, one federal colony. The capital and seat of govern-

ment is *Falmouth*, the chief town in Antigua.

² The islands of *Marie-galante* and *Desirade*, to the south-east of Guadeloupe, are dependencies of that island.

CURACAO, off the coast of South America, is the largest of the Dutch islands in the West Indies. Its chief town is **Wallenstadt**. **Oruba** is to the west, **Buen Ayre** to the east, of Curaçao.

5. **SANTA CRUZ**, which belongs to the Danish Crown, lies to the eastward of Porto Rico, and south of the Virgin group. Its chief town has the name of **Christianstadt**. The little islands of **ST. THOMAS** and **ST. JOHN**, within the Virgin group, also belong to the Danish Crown, their proposed transfer to the United States in 1867 not having been effected. St. Thomas has a good harbour, but suffers from earthquakes.

6. The large island of **HAYTI** (or **ST. DOMINGO**)—inferior only to Cuba in magnitude—is divided between the government of two Negro (or rather Mulatto) states, one of them entitled the Republic of Hayti and the other the Dominican Republic. The former embraces the western, the latter the eastern, division of the island.

Hayti is naturally one of the finest territories in the world, and was long one of the most productive. But since the closing years of the last century, prior to which time it has been divided between the possession of France and Spain, it has been the frequent theatre of anarchy and bloodshed, and its commercial produce has dwindled to an insignificant amount.

The area of Hayti is nearly 30,000 square miles¹—nearly as great as that of Ireland. Its population, about 822,000, is almost wholly of Negroes and Mulattoes. The chief town of the Republic of Hayti is **Port au Prince**; the capital of the Dominican Republic is the city of **San Domingo**.

QUESTIONS ON THE WEST INDIES.

1. By what seas are the islands of the West Indies surrounded?

2. Name the three portions into which the West Indies are divided. Which is the largest island of the entire archipelago?

3. What are the natural features of the larger islands of this region?

4. What do you know concerning the climate?

5. Mention some of the productions of the vegetable kingdom that are indigenous to this region.

6. What race of people forms the great majority of the population of the West Indies?

7. What are the chief commercial productions of the West Indies?

8. Which of the West India Islands belong to Spain?

9. Name as many as you can of the islands that belong to Britain.

10. Which islands belong to France, Holland, and Denmark, respectively?

11. Name the respective capitals of Cuba and Porto Rico.

12. Name the respective capitals of Jamaica, Trinidad, Barbados, and St. Vincent.

13. Which of the British islands are known as the Windward Islands? Which as the Leeward Islands?

14. Point to the following:—Antigua, St. Christopher, Montserrat, and the Virgin Islands.

15. Where are the Bahama Islands? What is the name of their chief town?

16. By what event, in the annals of geographical discovery, are the Bahama Islands distinguished?

17. Where are the Bermuda Islands, and to what nation do they belong? What is their chief article of produce?

18. Find out the places of the following islands on the map:—Guadaloupe, Martinique, St. Martin, Santa Cruz, and Curaçao.

19. Which of the islands in the West Indies belong to Sweden?

20. Into what two states is the island of Hayti divided? Name the chief town of each.

¹ The Republic of Hayti has an area of 10,204 square miles, and a population of 572,000. The

Dominican Republic has an area of 18,045 square miles, and a population of 250,000.

SOUTH AMERICA.

The continent of **SOUTH AMERICA** forms the southern half of the New World. It is joined to North America by the Isthmus of Panama, and stretches southward to Cape Horn, which lies nearly under the 56th parallel of south latitude. South America is crossed by the line of the equator, but by far the larger part of its extent is within the southern hemisphere.

BOUNDARIES.—South America is bounded on the *north* by the Caribbean Sea and the Atlantic Ocean, on the *east* by the Atlantic Ocean, on the *west* by the Pacific. To the southward it gradually diminishes in breadth, and terminates in a group of rocky islands, called Tierra del Fuego, of which the southernmost extremity is Cape Horn.

EXTENT.—Looked at as a whole, South America (like Africa) forms a vast peninsula. It includes an *area* of 7,000,000 square miles, and is therefore nearly twice the size of Europe.

The *greatest length*, from north to south, is about 4550 miles.

The *greatest breadth*, from east to west, is about 3200 miles.

The *extreme points* of South America are *Cape Gallinas* on the north, *Cape Branco* on the east, *Cape Parina* on the west, and *Cape Horn* on the south.

COAST-LINE.—The coasts of South America are (like those of Africa) remarkably regular and unbroken. The total length of coast-line is estimated at 15,000 miles, equal to an average of 1 mile of coast to every 482 square miles of surface.

1. **CAVES.**—The principal capes are—

- (1.) *On the north*: Gallinas and Orange.
- (2.) *On the east*: St. Roque, Branco, Frio, and Corrientes.
- (3.) *On the south*: Horn and Froward.
- (4.) *On the west*: Parina, San Lorenzo, and San Francisco.

Cape Gallinas is the most *northerly* point of the continent, Cape Branco the most *easterly*, and Cape Parina the most *westerly*. Cape Froward is the most *southerly* point of the mainland, but Cape Horn (which is the southernmost point of an extensive group of islands) is a more celebrated and better-known promontory.¹

2. **INLETS.**—The coast-line of South America presents few gulfs of any considerable magnitude. The following are among its most important inlets:—

- (1.) *On the north*: Gulfs of Darien, Maracaybo, and Paria, and the estuaries of the Amazon and Para.
- (2.) *On the west*: Gulfs of Panama and Guayaquil.

3. **STRAITS.**—The *Strait of Magellan*, between the Fuegian Islands and the mainland, and the *Strait of Le Maire*, between Tierra del Fuego and Staten Island.

¹ Cf. North Cape and Cape Nordkyn in Europe.

ISLANDS.—South America has few islands. Among the chief of them are the Falkland Islands and the Georgia Islands, off the *south-east* coast; the extensive group called Tierra del Fuego, in the *south*; the islands of the Patagonian Archipelago, Chiloe Island, Juan Fernandez, and the Galapagos Islands on the *west* side of the continent. Margarita, Curaçao, and a few others, in the Caribbean Sea, which lie near the *north* coast of South America, have been included in the account of the West Indies.

1. **Tierra del Fuego** is divided from the mainland of South America by the Strait of Magellan. It comprehends a vast number of islands, which are intersected by deep and narrow channels.

2. The islands that lie off the western coast of Patagonia are included under the name of the Patagonian Archipelago. They belong, physically, to the chain of the Andes, and are only divided from the mainland by narrow channels which penetrate the mountain-region.

MOUNTAINS.—South America is traversed by the loftiest and the most continuous system of highlands in the New World, namely, the Andes. Like North America, this continent exhibits the characteristic fact that its most elevated portions lie along the western side, and it exhibits this in a more eminent degree than is the case in the northerly half of the New World. The Andes lie much nearer to the Pacific coast than the Rocky Mountains do, and leave only a narrow plain between their western base and the sea.

South America has three mountain-systems—the *Andes*, the *Mountains of Guiana*, and the *Mountains of Brazil*. The Andes are much higher than either of the other two.

1. The **Andes** run in the direction of north and south, through the entire length of South America. They form in some parts two, and in others three, distinct chains, with high plateaux enclosed between. The highest measured summit of the Andes is *Sorata*, on the western border of Bolivia. This mountain reaches 24,812 feet above the sea, and is higher than any other in the New World. Even this great altitude, however, is upwards of 4000 feet beneath that of the culminating peaks of the Himalaya.¹

Many other mountains in the vast system of the Andes exceed 20,000 feet in height. A great number of snow-covered summits occur in the ranges enclosing the elevated tableland of Titicaca. Numerous high summits are also found in the immediate neighbourhood of the equator, amongst them *Chimborazo*, at one time supposed to be the loftiest mountain on the globe. Towards their southward extremity the Andes diminish greatly in height, and make much closer approach to the neighbouring ocean. In Patagonia the mountain-system rises steeply out of the waters of the Pacific. Through their entire course the Andes rise above the line of perpetual snow.

A great number of active volcanoes occur in the Andes, especially on the borders of Chili and in the neighbourhood of the equator. The highest of them is *Cotopaxi*, which is less than one degree south of the equator. Earthquakes are of frequent occurrence in most parts of the region which they traverse.

2. The **Mountains of Guiana** occupy part of the eastern side of the South American continent to the northward of the equator. Their general direction is east and west. Their highest elevation is estimated at about 10,000 feet, but the general height of the system is probably not more than 4000 or 5000 feet.

3. The **Mountains of Brazil** comprehend an extensive system of heights, which spread over a large portion of the eastern interior of South America.

¹ See page 173. Mount Everest is 29,002 feet.

They consist of numerous chains, some of them lying very near to the coast of the Atlantic, others at a considerable distance inland. Their elevation is very moderate, and the highest summits fall short of 6000 feet.

TABLELANDS.—The South American tablelands are found chiefly within the regions traversed by the Andes, and are enclosed between the double chains which are formed through large portions of that mountain-system.

The highest among them is the *plateau of Titicaca* (within Bolivia and Peru), which contains the large lake of that name, at an elevation of nearly 13,000 feet above the sea. The plain of Quito, which is crossed by the line of the equator, is at an elevation of 9000 feet. There are other portions of the mountain-system in which the enclosed plateaux—bordered on either hand by snowy summits—exhibit similar elevations. These high plains resemble the interior tablelands of the Asiatic continent, but are inferior to them both in altitude and in lateral dimensions.

PLAINS.—The whole interior of South America is but of moderate elevation. A series of plains stretch from the shores of the Caribbean Sea southward to the estuary of the La Plata and the mouth of the Rio Negro. These plains separate the Andes from the mountain-systems of Guiana and Brazil. They are naturally divided into three great portions, thus :—

1. The *llanos*, or grassy plains of the Orinoco valley.
2. The *selvas*, or forest plains of the Amazon valley.
3. The *pampas*, or plains of the La Plata region.

(1.) The *llanos* or *savannahs* resemble in general features the prairies of North America. They are vast natural meadows, portions of which are annually overflowed by the rivers.

(2.) The *selvas* exhibit a dense growth of natural forest. The forest-covered tracts are succeeded to the southward by grassy plains, which stretch from the upper portion of the basin of the Amazon into that of the Paraguay and other tributaries of the Rio de la Plata.

(3.) The *pampas* are vast plains which, according to the changes of the season, are alternately covered with herbage or with gigantic thistles. They stretch from the estuary of the La Plata to the base of the Andes.

RIVERS.—Nearly the whole of the South American continent has its slope directed towards the Atlantic, and all its larger rivers consequently discharge into that ocean. The Andes lie so near to the Pacific as to leave no room for the formation of any considerable streams upon their western side.

The chief rivers of South America, named in succession from the northward, are as follow :—

Magdalena.	Corentyn.	La Plata { Uruguay. Parana. Paraguay.
Orinoco.	Surinam.	
Essequibo.	Maroni.	
Demerara.	Amazon.	
Berbice.	San Francisco.	
		Colorado. Negro.

The river Magdalena flows into the Caribbean Sea, which is a gulf of the Atlantic. All the other rivers that are named in the above list terminate directly in the Atlantic Ocean.

Three of these rivers are greatly superior to the others in magnitude and geographical importance, namely, the *Orinoco*, the *Amazon*, and the *Rio de la Plata*. The Amazon alone drains an area equal to more than a third of the continent, and the three together water nearly three-fifths of its total extent.

1. The river *Orinoco* waters the region of the llanos or grassy plains. It rises in the mountain-system of Guiana, and is joined by numerous tributaries in its circuitous course to the sea. The most remarkable feature of the *Orinoco* is this: about 100 miles below its source the river divides into two branches, one of which flows to the south-westward, under the name of the *Casiquiare*, and joins the river *Negro*, an affluent of the *Amazon*. The *Orinoco* is thus connected, by a natural channel, with the basin of the river *Amazon*. There is no other instance in the world of the bifurcation of a river of such magnitude, though a few similar examples occur elsewhere among streams on a smaller scale.

2. The *Amazon* has its source in the Andes. The branch which rises in the small lake of *Louricocha* is regarded as the main stream of the river, but there are other branches of equal or greater length. In all, the *Amazon*¹ has a length of 3900 miles, so that it rivals the *Mississippi*. It receives a vast number of tributary streams, the principal of which is the river *Madera*.

3. The *Rio de la Plata*² is an immense estuary, formed by the junction of the rivers *Parana* and *Uruguay*. The *Parana* waters a vast area in the eastern interior of the continent, and is joined, 600 miles above the sea, by the river *Paraguay*, which drains a large portion of the more central plains.

LAKES.—South America has few lakes. The largest is *Lake Titicaca*, lying on the highest plateau of the Andes. It has fresh water, and discharges a considerable river, which flows to the south-eastward and terminates in an extensive marsh.

The other lakes lie adjacent to the coast. Among them are *Lake Maracaybo*, in the north; with *Lake Patos* and others on the eastern coast, a short distance to the northward of the *Rio de la Plata*.

CLIMATE.—South America, as a whole, has a warmer climate than North America. Two-thirds of its extent are within the Torrid Zone, and hence experience the heating influence of a vertical sun. But the tropical regions of the New World are less intensely heated than those of the African continent, owing to their being less arid than is generally the case with the latter region. The breadth of South America, too, is less considerable than that of Africa, and the extent of the solid unbroken land not so great. The higher latitudes of South America, however, are colder than similar latitudes in the northern hemisphere.

Rainfall.—The quantity of rain which falls in the tropical parts of South America is generally very great—superior in amount to the rainfall of any other part of the globe. The most striking instances of this are found in certain localities upon the coasts of Guiana and the northerly portions of Brazil. But an extensive region of the western coast, between the foot of the Andes and the Pacific Ocean, within Peru, Bolivia, and part of Chili, exhibits a remarkable exception to this general truth, and is distinguished by extreme aridity.³

PRODUCTIONS.—The natural and vegetable productions of South America are extremely rich and varied.

1. **Metals and Minerals.**—South America is rich in nearly every description of metallic ore. During a long period subsequent to the

¹ The *Amazon* and the *Mississippi* are the two longest rivers on the globe. Either of them surpasses, by several hundred miles, the length of the greatest rivers of the eastern hemisphere, and their waters drain vastly more extensive areas.

² That is, River of Silver—so called by its discoverers, under the erroneous impression that the countries which it waters were rich in that ore.

³ This arid tract is known as the *Desert of Atacama*.

Spanish conquest, it supplied more gold and silver than any other region of the globe, and the silver mines of Peru (few of which are now worked) were regarded as inexhaustible.

The whole region traversed by the Andes is capable of yielding both *gold* and *silver*, besides ores of *copper*, *iron*, *lead*, and other useful metallic productions. In modern times, Chili is more distinguished by mining industry than most other countries of South America, and its copper ore is of high value. Chili has also *coalfields* of some value. Brazil is still famous for its produce of gold, and also of *diamonds*—the latter is more abundantly found there than in any other part of the world.

2. Vegetation.—The remarks made under this head in reference to North America apply to South America also. Maize, cassava (or manioc), cocoa, tobacco, and the potato are the characteristic food-plants of the South American continent. The various species of *cinchona* (or Peruvian bark) are native to the tropical regions of the western coast; their valuable medicinal properties were known to the Indians prior to the first visit of Europeans to the New World. The *caoutchouc* (or India-rubber) tree¹ is a native production of the Brazilian forests, which comprehend a vast number of woods of the most valuable description—among them *mahogany*, *Brazil-wood*, *logwood*, and numerous others. The *maté-shrub* of Paraguay (or yerba-maté) is characteristic of that province, and its leaves are used for a purpose similar to those of the tea-plant in most other parts of the globe.

The combined heat and moisture which distinguish large portions of South America tend to foster luxuriance of vegetation. The forests of Brazil and Guiana—still, over vast regions, almost untrodden by man—surpass in extent and density of growth those of any other region.

3. Animals.—The animals that are native to the warmer latitudes of North America belong, for the most part, to South America also. The *puma* and the *jaguar* (or ounce), both of which occur in the wooded regions of Mexico and Central America, are the most formidable of its carnivora. The *llama* is an animal peculiar to South America. The proper llama, and also the various species known as the alpaca, vicuna, and guanaco, all belong to the high region of the Andes, where they range from Chili nearly to the northward extremity of the mountain-system. The llama belongs to the order of ruminating quadrupeds. It is used as a beast of burden. The *tapir* is another of the animals peculiar to South America, and is distinguished by the peculiar form of its snout, which bends inwards; it belongs to the order of pachydermata (thick-skinned). The sloth, anteater, and armadillo are natives of South America, and represent in its zoology the order of edentata (toothless animals). The quadrumana (monkeys, &c.) are exceedingly numerous in the forests of Brazil, but are of different species from the like animals in the eastern half of the globe. The opossums, which abound in the forests of South America, and one variety of which is common in the northern half of the New World, belong to the order of the marsupial (pouched) quadrupeds—nowhere else found but in the Australian division of the globe.

Both reptile and insect life are favoured by the combined heat and moisture—with its consequent luxuriance of vegetation—of tropical South America. The *boa-constrictor*, the largest of the serpent tribe, is found in the swampy plains, and the *alligator* abounds in most of the rivers within the warmer portions of the continent.

¹ The "India-rubber" is a gum which incisions are made for the purpose at exudes from the bark of the tree, in which particular period of the year.

INHABITANTS.—The total population of South America does not exceed thirty millions—a number that is extremely insignificant compared with its vast area and almost unlimited capabilities. About a third of the whole belong to the white race, and are almost exclusively of Spanish or Portuguese origin. With the exception of Brazil, which was colonised by Portugal, nearly all South America was formerly under Spanish rule.

The native Indian race of the New World is more numerous, in the present day, within South America than in North America, and perhaps numbers not less than five millions.¹ The Negro race (chiefly found in Brazil, where they form half the population) includes between three and four millions. Mixed races, or “Mestizoes”—principally of European and Indian blood—make up the remaining number.

DIVISIONS.—The following are the principal divisions of South America :—

BRAZIL.	BOLIVIA.
GUIANA (British, French, and Dutch Gulana).	CHILE.
VENEZUELA.	LA PLATA, or the ARGENTINE CON- FEDERATION.
COLOMBIA.	PARAGUAY.
ECUADOR.	URUGUAY.
PERU.	PATAGONIA.

EXAMINATION QUESTIONS.

1. By what isthmus is South America joined to North America? What seas wash the opposite shores of this isthmus?
2. How is South America bounded? In what does it terminate to the southward?
3. What gulfs occur on the coasts of South America?
4. Name some of the principal capes of South America. Which is the most northerly point? Which the most southwardly?
5. Point on the map to the following :—the Falkland Islands, Juan Fernandez, Tierra del Fuego, the Patagonian Archipelago, and the Galapagos Islands.
6. Name the principal mountain-systems of South America.
7. Comparing the highest mountains in the New World with the highest in the Old World, which exhibit the greatest altitude? Name the highest point in either hemisphere.
8. What tablelands belong to South America?
9. What portions of South America form a vast lowland-plain, and what are its three great divisions?
10. Where is the region of (1) the llanos, (2) the selvas, (3) the pampas, and what are the characteristic features of each?
11. Name as many as you can of the rivers of South America.
12. Which are the three largest rivers of South America?
13. In what way is the river Orinoco connected with the basin of the Amazon?
14. What two rivers unite in the estuary of the La Plata?
15. Name the largest lake in South America.
16. By what conditions is the climate of South America distinguished?
17. What parts of South America furnish the precious metals? Where are diamonds and copper found?
18. Name some of the more important among the food-plants that are native to South America.
19. What plants celebrated for their medicinal properties are native to South America?
20. Mention some other productions of the vegetable world that belong to this region.
21. Name some of the animals that are most characteristic of the South American continent.
22. What races of mankind are included among the population of South America? What proportion of the whole are whites?
23. Name the chief divisions of South America.

¹ It is worthy of note that although the whole continent was, at the time of its discovery by Columbus, fully occupied by various Indian tribes—some of which, as the Aztecs of Mexico and the Incas of Peru, had attained a comparatively advanced

civilisation—there is at present but one aboriginal tribe really independent, viz., the *Araucanians*, who occupy the district south of the river Biobio, nominally included in the Chilean dominions. The Araucanians, at the present time, number about 50,000.

BRAZIL.

BRAZIL¹ is the largest country of South America. It embraces a vast portion of the eastern shores of that continent, and stretches over nearly half its entire extent.

BOUNDARIES.—Brazil is bounded on the *north* by Colombia, Venezuela, and Guiana; on the *north-east* and *east* by the Atlantic Ocean; on the *south* and *south-west* by Uruguay, the La Plata territory, and Paraguay; on the *west* by Bolivia, Peru, and Ecuador.²

EXTENT.—The area of Brazil is estimated at 3,275,000 square miles,³ thus comprising nearly half of the South American continent, and not much less than Europe.

The *greatest length*, from Cape Orange on the north to San Pedro on the south, is 2500 miles. The *greatest breadth*, from Cape St. Roque on the east to the Peruvian borders on the west, is 2600 miles.

COASTS.—Generally regular and unbroken. Total length, 3700 miles. The principal capes are Orange, St. Roque, and Frio. The chief inlets are the estuaries of the Amazon, Para, Maranhao, and the Bays of Bahia and Rio Janeiro.

NATURAL FEATURES.—The great feature of Brazil consists in its vast plains, which are watered by the largest rivers in the world. Its western boundary nowhere reaches the Andes, and even the highest portions of its surface attain only a moderate elevation above the sea. The mountains of Brazil rarely exceed 3000 feet in height. The greater part of the region over which they stretch forms a moderately-elevated plateau, seldom exceeding 1000 feet above the sea, and traversed by hills of gentle ascent. The range known as the *Serra do Mar*, which stretches along part of the coast, exhibits a steeper acclivity. The other chief ranges are the *Serra Espinhaço*,⁴ and the *Serra dos Vertentes*.

RIVERS.—Brazil includes the vastly greater portion of the immense valley of the Amazon, and a small part of the valleys of the Parana and Paraguay. The entire valley of the river San Francisco is within its limits.

The Amazon is the chief river of Brazil. It is throughout navigable by vessels of considerable tonnage, and its stream, at between 400 and 500 miles above the sea, has a breadth of several miles, which increases to 50 miles and upwards immediately above its mouth. The Amazon has numerous tributaries, among which the *Negro*, on its left or northern bank, the *Madera*, *Tapajos*, *Xingu*, and *Tocantins*, on the right or southern bank, are the most considerable. Every one of these is a large river. Brazil, indeed, abounds in inland waters, and possesses capabilities for inland navigation such as belong to few other regions.

CLIMATE.—The climate of Brazil is thoroughly tropical. With the exception of the extreme southern provinces, the whole country is within the Torrid Zone.

¹ Brazil was discovered by Cabral in 1500, and was named by him *Terra de Santa Cruz*—the land of the holy cross. The name Brazil is derived from the red Brazil wood, which the Portuguese compared to red-hot coals (Portuguese, *brasil*).

² Brazil thus borders on every country in South America with the exception of Chili and Patagonia.

³ 55 times that of England and Wales.

⁴ Highest points: *Itambe*, 5960 feet; and *Itacolumi*, 5750 feet.

PRODUCTIONS.—The *diamond* and other *precious stones*, with *gold*, *silver*, *iron*, *copper*, *lead*, are among its productions. But the mineral wealth of Brazil is greatly inferior in importance to the vegetable produce of its soil, and to the inexhaustible treasures of its *forests*.

INHABITANTS.—The population of Brazil is upwards of 11,000,000, fewer than a sixth part of whom are whites. These are almost exclusively of Portuguese descent.

A large proportion of the population of Brazil consists of Negro slaves.¹ There are, however, a considerable number of free Negroes, who possess the full privileges of citizens, and are in all respects on terms of equality with the whites. The remainder consists of Indian and mixed races.

Language and Religion.—The Portuguese language is spoken by the population of Brazil. The Roman Catholic religion is followed.

INDUSTRY.—Brazil is chiefly an agricultural country. Its soil possesses the highest fertility, and yields the most abundant harvests. *Coffee*, *sugar*, and *cotton* are its staples of produce, and the first-named has become increasingly important within recent years. *Rice*, *cocoa*, *maize*, and *tobacco*, with the *manioc* and other articles of native growth, are also extensively produced. The *manioc* yields the cassava-bread, the chief article of food to the native Indian population.

Commerce.—Brazil carries on a great foreign trade with Britain.² *Coffee*, *cotton*, and *sugar*, with *hides*, *tallow*, *ornamental woods*, and some *gold* and *diamonds*, are its articles of export. In 1878 the value of the total *imports* amounted to nearly £9,000,000, and the *exports* to £9,230,000. The chief *ports* are Rio Janeiro, Bahia, Pernambuco, and Para.

GOVERNMENT.—Brazil is the only country in South America which is under a monarchical government. It forms an hereditary empire, with a free constitution, and has advanced rapidly in the path of improvement, both commercial and social, within a recent period.

Finance.—Estimated revenue (1881-82), £11,700,000; expenditure, £11,900,000; public debt (1880), £81,000,000.

Army and Navy.—The *army* service, which is compulsory, consists of about 15,000 men, and the *navy* of 54 vessels, 18 of which are ironclads.

DIVISIONS and TOWNS.—Brazil includes twenty-one large provinces, the most populous and important of which are those that border on the Atlantic. The regions of the more distant interior are little known, and large portions of them yet remain almost unexplored. The larger towns are all situated on or near the coast.

The capital of Brazil is **Rio Janeiro**,³ which stands on the western side of a fine bay, one of the most magnificent of natural harbours. Rio Janeiro (or Rio, as it is often, by abbreviation, called) has nearly 300,000 inhabitants, and is the largest city in South America. **Bahia** (population, 130,000), 800 miles to the northward of Rio, is the second city in the

¹ In 1874 the number of slaves was officially stated at 1,010,000. Slavery will, however, in time be abolished by the operation of a law passed in 1871, which provides that the children of slaves are to be considered free. They are, however, bound to serve for 21 years as apprentices.

² In 1870 the exports to the United Kingdom from Brazil were valued at £5,968,000, and the imports of British produce at £4,749,000.

³ Founded by the Portuguese in 1567. Constituted the capital of Brazil in 1763, instead of Bahia.

empire, and is also the seat of a great foreign trade. **Pernambuco** ranks third in importance. This place consists really of several adjoining towns, which have grown into one, and of which that distinguished as Recife—the business quarter of Pernambuco—is the most considerable. Pernambuco is 450 miles north of Bahia.

The most northerly seaport of Brazil is **Para**, which is situated on a fine estuary called the Rio do Para, upon the north-eastern coast. Para is by position the great outport for the Amazon valley—a region of which the vast capabilities are as yet altogether undeveloped.

In the more southwardly division of Brazil, the two chief seats of commerce are the towns of **San Paulo** and **San Pedro**. The first named lies upwards of 200 miles to the south-westward of Rio, and some miles inland. The maritime town of Santos constitutes its port. San Pedro (or Rio Grando do Sul) is near the southern extremity of the country, at the outlet of the large lake of Patos.

QUESTIONS ON BRAZIL.

1. How is Brazil bounded? What is its area, in square miles?
2. What constitutes the great natural feature of Brazilian geography?
3. Name the principal rivers of Brazil.
4. Say what you know of the Amazon in its course through Brazil.
5. Describe briefly the climate and natural productions of Brazil.
6. What races of people constitute the population of Brazil? What language is spoken by its population? What form of religion prevails?
7. To what is the industry of the Brazilian population chiefly devoted?
8. Under what form of government is Brazil?
9. Name the capital and other chief cities of Brazil.
10. Where are the towns of Para, San Paulo, and San Pedro?

GUIANA.

GUIANA,¹ an extensive region in the north-eastern part of South America, is bounded on the *north* and *north-east* by the Atlantic Ocean, on the *south* by Brazil, on the *west* by Brazil and Venezuela.

DIVISIONS.—Guiana is now divided into three parts, which belong respectively to Great Britain, Holland, and France, and are hence known as British, Dutch, and French Guiana.

1. **BRITISH GUIANA** is the most westwardly of these three divisions. It adjoins Venezuela and Brazil on the west and south, and is divided from Dutch Guiana by the course of the river Corentyn. *Area*, 76,000 square miles.

2. **DUTCH GUIANA** is the middle portion of the whole. It is divided from British Guiana by the river Corentyn, and from French Guiana by the river Maroni. Upon the south it borders on Brazil. *Area*, 38,500 square miles.

3. **FRENCH GUIANA** is the most easterly portion. The river Maroni divides it from Dutch Guiana, and the river Oyapok from Brazil, upon which it borders on the east and south. *Area*, 27,560 square miles.

¹ Guiana is so called from an Indian tribe, the *Guayanones*.

NATURAL FEATURES.—All three divisions of Guiana are washed by the Atlantic Ocean, along the coasts of which they exhibit a low plain of great natural fertility. The country rises thence towards the interior, and stretches south as far as the range of the Sierra Acaray.

RIVERS.—The numerous rivers of Guiana are the most important among its natural features. The uniform direction of their main streams is from south to north, and they all discharge into the Atlantic.

1. British Guiana includes the rivers *Pomeroon*, *Essequibo*, *Demerara*, and *Berbice*; the *Corentyn* divides it from Dutch Guiana.

2. Dutch Guiana includes the river *Surinam*, and has the rivers *Corentyn* and *Maroni* on its western and eastern frontiers.

3. French Guiana is bounded by the river *Maroni* on the west and the *Oyapok* on the east.

CLIMATE.—All Guiana has a tropical climate. It is situated, indeed, within the heart of the Torrid Zone. But the climate, though undoubtedly trying to Europeans, is much less unhealthy than that of most other regions within the tropics. The deadly fevers that prevail upon the African coasts are unknown in South America.

PRODUCTIONS.—The soil of Guiana is exuberantly fertile, and the natural wealth of its forests is unbounded.

1. **BRITISH GUIANA**¹ has a population of 250,000, five-sixths of whom are Negroes. There are still a few thousand native Indians, whose number undergoes a gradual decrease. The white settlers are chiefly of British origin.

The capital of British Guiana is *Georgetown* (population, 36,500), which is situated on the river Demerara, a short distance above its mouth. The only other town of any note is *New Amsterdam*, on the river Berbice.

The Commercial Productions of British Guiana consist chiefly of *sugar* and *coffee*, with *cotton*, *tobacco*, and a few other tropical staples to a less extent. *Timber* is also largely exported. The mouth of the Demerara river is the chief locality of commerce.

2. **DUTCH GUIANA**² has about 70,000 inhabitants, mostly Negroes. Its chief town is *Paramaribo* (population, 20,000), on the river Surinam, the name of which is often applied to the entire province.

The Commercial Productions of Dutch Guiana are chiefly *sugar*, *coffee*, and *cotton*.

3. **FRENCH GUIANA**³ or Cayenne, has a population stated to number (including the native Indian race) about 32,000. The labours of the field, however, as in other parts of Guiana, are performed by Negroes. The chief town is *Cayenne* (population, 5000), situated on an island which nearly adjoins the coast.

The Commercial Productions of French Guiana are, besides *sugar* and *coffee*, *pepper*, *cloves*, *cinnamon*, and *nutmegs*.

¹ Guiana was discovered by Columbus in 1498, and was first settled by the Dutch in 1580. The British portion of the country was finally ceded to England in 1814.

² Taken by the English in 1650 but ceded

to the Dutch in 1662. Again taken by the English in 1799 and 1804, but finally restored in 1814.

³ Settled by the French in 1604. Held by the British from 1809 to 1814.

VENEZUELA.

VENEZUELA¹ embraces part of the northwardly division of South America, and is bounded on the *north* by the Caribbean Sea, on the *east* by the Atlantic Ocean and British Guiana, on the *south* by Brazil and Colombia, and on the *west* by Colombia. The *area* of Venezuela is estimated at 400,000 square miles, which is nearly seven times greater than that of England and Wales.

NATURAL FEATURES.—Venezuela includes the greater part of the Orinoco valley, with its extensive savannahs or llanos. These vast grassy plains are succeeded, at intervals, by forest-covered tracts of surprising richness.

The river **Orinoco** is first in importance among the natural features of Venezuela. It is joined by a great number of tributary streams, several among which rival the larger rivers of most other lands. Above its outlet the Orinoco forms a delta of vast extent, intersected by numberless channels.

CLIMATE.—The climate of Venezuela, though hot, is not unhealthy, excepting near the coast and in some of the low grounds that border on the rivers.

PRODUCTIONS.—The natural wealth of the soil is surprisingly great. The forests abound in the most valuable timber. *Cocoa*, *tobacco*, *indigo*, *vanilla*, *cinchona* (or Jesuit's bark), and the *cochineal*-plant, are among its many valuable productions. *Wild-horses* and *oxen* roam over its vast interior plains.

INHABITANTS.—Venezuela has about 1,800,000 inhabitants, among whom the Mestizoes, or half-caste race (of mixed Spanish and Indian blood), are by much the most numerous. The whites are few in number.

INDUSTRY.—The chief articles of commercial produce are *sugar*, *cocoa*, *coffee*,² *tobacco*, and *cotton*, with *hides* and *cattle*. The larger part of the foreign trade, which has largely increased within recent years, is carried on with Great Britain, the United States, France, and Germany.

TOWNS.—The capital of Venezuela is the city of **Caracas** (*population*, 50,000), which is a few miles distant from the shores of the Caribbean Sea. **La Guayra**, on the coast, forms its port, and has a large amount of foreign trade. **Cumana** and **Barcelona**, both to the eastward of Caracas, are also of some commercial importance. The island of **Margarita**, to the north of Cumana, belongs to this state.

The only other towns of any note are **Valencia** and **Maracaybo**. **Valencia** is south-west of Caracas, and, like that city, lies a few miles inland; **Puerto Cabello** is its port. **Maracaybo** is on the west side of the channel which connects the lake of that name with the sea. **Angostura**,³ is the chief place in the valley of the Orinoco.

¹ Venezuela, little Venice. So called by the Spaniards from the Indian pile-houses which they found at the entrance of Lake Maracaybo. The present republic of Venezuela was formed in 1830.

² The annual value of the exports from Venezuela amounts to about £3,000,000. The staple article of export is *coffee* (value about £2,500,000).

³ Or Ciudad Bolívar.

COLOMBIA.

The UNITED STATES OF COLOMBIA (formerly called New Granada) include the north-west corner of South America. These states are bounded on the *north* by the Caribbean Sea, *east* by Venezuela, *south* by Brazil and Ecuador, and on the *west* by the Pacific Ocean. The *area* of the republic is estimated at 504,000 square miles, or about eight times that of England and Wales.

NATURAL FEATURES.—The great natural features of Colombia are the *Andes*, the plain along their western base, and the valley of the *Magdalena*.

Mountains.—Colombia includes the northerly portion of the Andes, which here form three (and, in one part, four) divergent chains, with elevated plains between. To the westward of the Andes a low and fertile plain stretches along the coast to the Pacific.

Rivers.—The chief river of Colombia is the *Magdalena*, which enters the Caribbean Sea. The *Magdalena* and its tributary the *Cauca* water the valleys that intervene between the three principal chains of the mountain-system. The *Atrato*, which flows into the Gulf of Darien, is west of the *Magdalena* valley.

CLIMATE and PRODUCTIONS.—The lowland portions of Colombia are covered with a dense forest, and have an intensely hot climate; but the mountain-region is comparatively cool. The mineral wealth of this country is very great, and includes ores of *iron*, *copper*, and *lead*, as well as the precious metals. The agricultural resources are of still higher value. The commercial produce of the country consists of *cocoa*, *coffee*, *cinchona* (or bark), *indigo*, *tobacco*, and *cotton*, with a small amount of *gold* and other metals. The foreign trade is mainly with Great Britain and the United States.

INHABITANTS.—The population exceeds 3,000,000. Among them are whites (of Spanish descent), native Indians, a few Negroes, and a vast majority of mixed Indian and Spanish blood.

TOWNS.—The capital of New Granada is *Santa Fe de Bogota* (*population*, 40,000), which is situated on one of the high plateaux of the Andes, formed by the most eastwardly of the mountain-ranges. *Santa Fé* lies at an elevation of more than 8000 feet above the sea.

The chief seaport of this country is *Cartagena* (*population*, 12,000), on the coast of the Caribbean Sea. *Cartagena* is memorable in English history as the scene of a disgraceful failure in the attempt at its capture by a squadron under Admiral Vernon in 1741.

The larger part of the *Isthmus of Panama* falls within the **STATE OF PANAMA**, which forms the most important member of the Colombian confederation.

The chief place within this territory is the city of *Panama* (*population*, 12,000), situated on the gulf of that name, upon the Pacific side of the isthmus. The traffic across this narrow but important neck of land is maintained by means of the railway which connects the city of Panama with the rising town of *Aspinwall*, or *Colon*, on the opposite side of the isthmus. Final arrangements have recently (1881) been made for the construction of a ship canal across the Isthmus, which, when completed, will, to a large extent, supersede the Cape Horn route to and from the Pacific. A short distance to the eastward of *Aspinwall* is *Porto Bello*, formerly a place of importance, but now decayed. It was captured by the English squadron under Vernon in 1740, at the commencement of the Spanish war of that era.

ECUADOR.

The republic of Ecuador¹ is bounded on the *north* by Colombia, on the *east* by Brazil, on the *south* by Peru, and on the *west* by the Pacific Ocean. Its coast-line, which is limited to the Pacific, includes the *Gulf of Guayaquil*. The *Galapagos Islands* belong to this state. The area of Ecuador is nearly 250,000 square miles, or about four times that of England and Wales.

NATURAL FEATURES.—Ecuador includes part of the Andes (which there form two great ranges, with high tablelands between), with the plains that stretch to the east and west of the mountain-region. These plains extend on the one side to the waters of the Pacific, and on the other into the great lowland of the Amazon basin.

1. The portion of the Andes that falls within Ecuador is one of the most elevated parts of the whole mountain-system. The *Plain of Quito*, directly under the line of the equator, has an elevation of 9000 feet above the sea, and numerous high summits bound it on either hand. Among them are *Chimborazo*, *Cayambe*, *Antisana*, *Cotopaxi*, and others, several of them active volcanoes.

2. The river **Amazon** forms the chief part of the southern boundary of Ecuador, and several of its tributaries flow through the eastwardly division of the state. The two most important among them are the *Napo* and the *Putumayo* (or *Ica*).

CLIMATE and PRODUCTIONS.—The mountain-region of Ecuador enjoys a cool climate, and the city of Quito, though nearly under the line of the equator, has the temperature of an English spring. But the plains of the coast are heated and moist. The natural productions resemble those of Colombia. The *cinchonas* abound in the extensive forests.

INHABITANTS.—Ecuador has not much more than 1,000,000 of inhabitants. These are chiefly mixed races, with some native Indians, and a small proportion of whites (of Spanish descent).

INDUSTRY.—The produce of the country is almost exclusively agricultural, and consists principally of *cocoa* and *coffee*, with *tobacco*, *hides*, and *Peruvian bark*.

TOWNS.—The capital city of Ecuador is *Quito* (*population*, 80,000), situated on the interior plateau, nearly under the line of the equator. The chief seaport is *Guayaquil* (*population*, 22,000), which stands at the head of the gulf called by its name. None of the other towns are of more than local importance.

Two of the three countries last described—Venezuela and Ecuador—nominally form republics, each under an elective presidency. Colombia or New Granada has consisted, since 1861, of a confederation of nine distinct states, under the title of the “United States of Colombia”—Panama being one of the number. All three countries were formally under Spanish rule. In all, the white population is Spanish, and the Spanish language is uniformly spoken. The Roman Catholic religion is followed.

¹ That is, Equator, of which Ecuador is the Spanish form.

QUESTIONS ON GUIANA, VENEZUELA, &c.

1. Where is Guiana? Name its boundaries.
2. Into what three portions is Guiana divided?
3. Name some of the principal rivers of Guiana.
4. Say what you know concerning the climate and productions of Guiana.
5. In what portions of Guiana are the following:—Georgetown, New Amsterdam, Paramaribo, and Cayenne? Point to the places of each upon the map.
6. Of what do the commercial productions of British Guiana consist?
7. Where is Venezuela? Name its boundaries, and point them out upon the map.
8. What river constitutes the most important natural feature of Venezuela?
9. Mention some of the natural productions of Venezuela.
10. What races of people form the population of Venezuela?
11. Name the capital of Venezuela. What place constitutes its port?
12. Where are the following places:—Cumana, Barcelona, Maracaybo, and the island of Margarita?
13. Where is Colombia? Name its boundaries.
14. What are the great natural features of Colombia?
15. Describe the chief river of Colombia.
16. Say what you know concerning the climate and natural resources of Colombia.
17. What are the commercial productions of Colombia?
18. Name the capital, and also the chief seaport, of Colombia.
19. Where are the following cities:—Panama, Aspinwall, and Porto Bello? The Panama canal now being constructed will be of vast importance to commerce. How?
20. How is the republic of Ecuador bounded? What islands belong to it?
21. What kind of natural features does Ecuador exhibit? Name some of the mountain-summits that are within its limits.
22. What great river forms part of the southern boundary of Ecuador? What two of its tributary streams are within the state?
23. The climate of a large part of Ecuador, though situated within the heart of the Torrid Zone, is yet temperate. How is this to be accounted for?
24. Name the chief city, and also the principal seaport, of Ecuador.
25. Under what forms of government are the three states of Venezuela, Colombia, and Ecuador? What language is spoken? What religion is followed?

PERU.

PERU is on the western side of South America, and is bounded on the *north* by the republic of Ecuador, on the *east* by Brazil and Bolivia, on the *south* by Bolivia, and on the *west* and *south-west* by the Pacific Ocean. It comprehends an area of 500,000 square miles—about nine times the size of England and Wales.

NATURAL FEATURES.—Peru includes (1.) a large portion of the Andes; (2.) a plain along the Pacific coast, between the mountains and the sea; and (3.) a more extensive plain which stretches from the eastern base of the mountains into the interior.

1. The portions of the *Andes* which traverse Peru include some of the highest elevations of the mountain-system. Cold and barren tablelands, which rival in elevation the lofty plateaus of central Asia, are included between the exterior chains or cordilleras. The *Tableland of Pasco* (between 10° and 11° S. lat.) reaches 11,000 feet, and the tableland which contains the *Lake of Titicaca*, farther to the southward, is still more elevated.

2. The *coast-plain* constitutes, however, the most remarkable feature in the physical geography of Peru. It is almost throughout an arid and sandy region, in which the only verdure is found on the immediate banks of the numerous short streams by which it is traversed.

3. Peru includes the upper portion of the great river *Amazon*, and the chief tributaries by which it is joined, either within the mountain-region, or shortly after its issue from the mountains.

CLIMATE.—The climate of Peru varies with the most striking differences in its physical conformation. The mountain-region is cold. The coast-plain is as intensely hot and arid as the *tehama* of the Arabian peninsula¹—a tract which it resembles in many respects. Rain is almost unknown here, and the dense mists which are of periodical recurrence are the only source of moisture. The plains to the east of the mountains are watered by abundant rains.

INHABITANTS.—The population of Peru exceeds 2,700,000.² The vast majority are Indians and mixed races. The whites are of Spanish descent.

PRODUCTIONS.—Peru has great mineral wealth, and still greater agricultural resources. Its mines of *gold*, *silver*, and *quick-silver*, long the richest in the world, are now only worked to a limited extent. *Nitrate of soda* is extensively obtained in the neighbourhood of Iquique, towards the southward extremity of the coast-plain.

All the rich productions of the South American forests—*gums*, *balsams*, *cinchona-bark*, *vanilla*, *sarsaparilla*, and the *caoutchouc-tree*—abound in Peru, and the food-plants of Europe thrive at various elevations among the mountain-region. The *guano* procured from the little group of the Chincha Islands (13° 40' S. lat.) has for many years constituted one of the chief items of the Peruvian export-trade. The export of *sugar* has largely increased within recent years. The development of the resources of the country has been greatly facilitated by the construction, mainly at the expense of the state, of an extensive system of railways. About 2000 miles of railway are now open for traffic. At present the country is, owing to the recent disastrous war with Chili, so disorganised, and has so materially suffered, that it will take years to restore it to its previously flourishing condition.

TOWNS.—The capital of Peru is the city of *Lima* (population, 150,000), which is 6 miles distant from the coast of the Pacific. Lima was founded (A.D. 1535) by Pizarro, whose remains lie within its magnificent cathedral. *Callao*, on the adjacent coast, is the port of Lima, and the chief commercial outport of Peru. Both Lima and Callao have suffered greatly during the recent war with Chili.

* * The Chilians, having taken Tacna and Arica, in the south of Peru, determined to attack Lima. The Chilean forces numbered 30,000, to oppose which the Peruvians mustered 50,000. The decisive battles at *Chorrillo*, near Lima, on January 13, 1881, and on the following day at *Miraflores*, resulted in the complete defeat and dispersion of the Peruvian army, and the surrender of *Lima* and *Callao*, which are still (June 1881) held by the Chilians pending the settlement of terms of peace. After the battle of *Miraflores*, Señor Pierola, the president of the republic, fled. An attempt to form a provisional government having failed, the country is still occupied by the Chilean forces.

Cuzco, *Arequipa*, and *Pasco* are among the most considerable inland cities of Peru; *Payta*, *Huanchaco*, and *Arica* are (with *Callao*) among its chief seaports. *Cuzco* (population, 40,000) is a city of early Indian origin, the former capital of the Incas or native sovereigns of Peru. It stands in a valley which is elevated more than 11,000 feet above the sea.

¹ See page 194.

² An average of 5 per square mile.

BOLIVIA.

BOLIVIA is bounded on the *north* by Peru, on the *north-east* and *east* by Brazil, on the *south* by La Plata, and on the *west* chiefly by Peru. A very small portion only of its western frontier touches the Pacific Ocean. The *area* of Bolivia is considerably greater than that of Peru, being estimated at 842,000 square miles, or nearly fifteen times that of England and Wales.

NATURAL FEATURES.—Some of the highest portions of the Andes are within Bolivia. The border-line between Peru and Bolivia crosses the high tableland of Titicaca, the larger portion of which is within the latter state. Upon either side of the tableland are ranged some of the highest summits of the mountain-system. One of the number—the peak of *Sorata*—is now known to surpass in height even Aconcagua, which was formerly regarded as the culminating summit of the western world.

1. To the east of the *Bolivian Andes* vast plains stretch towards the interior of the continent; the country along their western base is an arid wilderness. Only a small portion of the latter tract, however, is within Bolivia.

2. The eastward division of Bolivia is watered by numerous rivers, some of which belong to the basin of the *Amazon*, others to that of the *Paraguay*. *Lake Titicaca* is partly within Bolivia and partly in Peru. The basin of this lake is entirely inland; a stream which issues from it is lost in the salt lake of *Uros*, to the south-eastward.

CLIMATE and PRODUCTIONS.—The climate and productions of Bolivia resemble those of Peru. Like that country, it abounds naturally both in mineral and vegetable wealth.

The **Commercial Productions** of Bolivia include *precious metals*, *bark*, and the *wool* of the alpaca and other animals of the llama tribe. *Coffee*, *cocoa*, *tobacco*, *sugar*, and *maize* are the common objects of culture.

INHABITANTS.—The population of Bolivia is estimated at more than 2,000,000, chiefly composed of Indians and mixed races. The whites, as is the case along the whole western side of the South American continent, are Spanish.

TOWNS.—The capital of Bolivia is **Sucre**, formerly Chuquisaca (*population*, 24,000), situated on the interior plateau-land, at an elevation of more than 9000 feet. **Potosi** (*population*, 23,000), to the south-west of the capital, is a more famous city, on account of the rich silver mines with which its name was formerly so long associated.

The town of **La Paz**, which stands only a short distance from Lake Titicaca, is more populous and commercial than any other place in Bolivia, and the chief transit trade of the republic passes through it. The only seaport of Bolivia is **Cobija**, a wretched place, situated on an arid line of coast, and now (June 1881) held by the Chileans.

GOVERNMENT.—Both Peru and Bolivia are nominally republics, the supreme executive authority in each being confided to an elective president. In reality, in the case of these and other South American states, the government has become a military despotism. Peru is at present (June 1881) virtually governed by the commanders of the Chilean army of occupation.

RELIGION.—In both countries the religion uniformly followed is that of the Roman Catholic Church.

QUESTIONS ON PERU AND BOLIVIA.

1. On which side of South America is Peru?
2. What three natural divisions does the physical geography of Peru include?
3. What kind of region is the coast-plain of Peru?
4. What great river has its upper portion within Peru?
5. Say what you know concerning the climate, and mineral and vegetable productions, of Peru.
6. From what group of islands, on the coast of Peru, is guano obtained?
7. Name the chief city and port of Peru.
8. Where are the following places:—Cuzco, Arequipa, Pasco, Payta, and Arica?
9. By what circumstance is Cuzco historically distinguished?
10. Point to Bolivia on the map, and name its boundaries.
11. What great lake is on the borders of Bolivia and Peru?
12. What kind of country is to the west of the Bolivian Andes? What to the east?
13. Mention some of the commercial productions of Bolivia.
14. Point out the following places on the map:—Chuquisaca, Potosí, and La Paz. Which of them is the capital and seaport of Bolivia?
15. Under what form of government are Peru and Bolivia? What religion is followed?

CHILI

CHILI is a narrow strip of country upon the western sea-board of South America, between the Andes and the Pacific Ocean. On the *north* Chili is bounded by Bolivia, on the *east* by La Plata, on the *west* (and also on the *south*) by the Pacific Ocean. Though of such narrow limits in the direction of east and west, the area of Chili is not less than 130,000 square miles, which is more than twice the size of England and Wales.

NATURAL FEATURES.—The stupendous cordillera which forms its eastern boundary is the great feature of Chili. The *Chilian Andes* include some of the highest summits of the mountain-system—the loftiest being the peak of Aconcagua. Numerous other high summits, many of them volcanoes, occur both to the north and south of this peak.

The plain between the Andes and the ocean is much broader within Chili than upon other parts of the South American coast. This plain is not uniformly level, but for the most part diversified by hills of moderate altitude, with watered valleys between. Towards the extreme north, however, it passes into a perfectly arid region, called the *Desert of Atacama*, the greater part of which is within Chili. This is a perfectly sterile wilderness, devoid of rain and entirely destitute of verdure.

RIVERS.—Chili contains numerous rivers, which uniformly have their courses to the westward, flowing from the Andes into the Pacific Ocean. The longest of them is the *Biobio*.

CLIMATE.—The climate of Chili is temperate and healthy, becoming gradually cooler towards the south.

PRODUCTIONS.—Among its mineral productions are *copper* and *coal*, both of which are worked—the former to a considerable extent.

The **Commercial Produce** of the country is derived partly from the mines, and partly by agricultural labour. Oxen are reared in vast numbers, and their hides exported. The commercial intercourse maintained with Europe is greater than is the case with any other country on the western side of South America. Chili exports *copper-ore*, a small quantity of *silver*, *hides*, *wheat*, *flour*, *jerked-beef*, and *wool*.

INHABITANTS.—The population of Chili is little short of two millions. It includes a larger proportion of the white race (Spanish) than is the case in other countries of South America. The Roman Catholic religion is uniformly followed by the Chilean people.

GOVERNMENT.—Chili (like all the other states of Spanish America) is a republic, under an elective president.

Chili proclaimed its independence in 1810. The war with Peru and Bolivia has recently (January 1881) closed by the total defeat and dispersion of the Peruvian army at Chorillos and Miraflores, and the surrender of Lima and Callao to the Chileans.

TOWNS.—The capital of Chili is **Santiago** (population, 180,000), an inland city, about midway between the Andes and the ocean. The chief seaport is **Valparaiso** (population, 97,000), which is the most extensive mart of commerce upon the west coast of South America. The city of **Concepcion**, on the river Biobio, to the southward of Valparaiso, is also of considerable commercial importance. On the coast to the northward of Valparaiso there are numerous ports, amongst which **Coquimbo** is the most important.

LA PLATA, OR THE ARGENTINE CONFEDERATION.

LA PLATA¹ embraces a confederacy of states, which are together entitled the **ARGENTINE**² **REPUBLIC** or the United Provinces of La Plata. The total area is estimated at 803,000 square miles, or about fourteen times that of England and Wales.

BOUNDARIES.—The territory of La Plata is bounded on the north by Bolivia, on the west by Chili, on the south by Patagonia, and on the east by Paraguay, Brazil, Uruguay, and Buenos Ayres.

NATURAL FEATURES.—The greater part of the La Plata territory is an immense plain. This plain includes, in the south, the region of the *pampas*, and, in the north, the larger portion of an extensive tract called the *Gran Chaco*—a succession of grassy plains, of the highest natural fertility, though tenanted only by wild beasts or equally wild Indians.

Rivers.—The rivers of La Plata are of first-rate magnitude. Among them are the *Paraguay*, the *Parana*, and the *Uruguay*, the three great feeders of the extensive estuary entitled the river *Plate* (Rio de la Plata). The whole region, with the exception of a very small tract in the extreme north, is within the Temperate Zone, and the climate is not generally warmer than that of southern Europe.

INHABITANTS.—This territory is very thinly populated. Its inhabitants number about two millions. A larger proportion are of white race than is the case in the countries farther north. The whites are chiefly, but by no means exclusively, of Spanish descent.

Language and Religion.—The Spanish language prevails throughout the territory of La Plata. The Roman Catholic religion is uniformly followed.

¹ So called from the *Rio de la Plata*, the river of silver. ² *Argentine*, from the Latin, *argentum*, silver.

PRODUCTIONS.—The vast herds of oxen and horses constitute the wealth of La Plata. The articles that form its commercial exports are *hides, horse-hair, horns, wool, tallow, dried beef, and furs*, together with small quantities of mineral produce (chiefly *gold, silver, and copper*).

DIVISIONS.—The fourteen provinces of the Argentine Confederation, with their chief towns, are shown in the following table :—

Provinces.	Chief Towns.	Provinces.	Chief Towns.
(1.) Maritime Provinces—		Central Provinces—	
Buenos Ayres, . . .	Buenos Ayres.	Cordova, . . .	Cordova.
Santa Fé, . . .	Santa Fé.	San Luis, . . .	San Luis.
Entre Rios, . . .	Parana.	Santiago del Estero,	Santiago del Estero.
Corrientes, . . .	Corrientes.	Tucuman, . . .	Tucuman.
(2.) Andean Provinces—		Northern Provinces—	
Rioja, . . .	Rioja.	Salta, . . .	Salta.
Catamarca, . . .	Catamarca.	Jujuy, . . .	Jujuy.
San Juan, . . .	San Juan.		
Mendoza, . . .	Mendoza.		

GOVERNMENT.—Each of the provinces included within the Argentine Confederation is a distinct republic, the whole constituting together a federal union. When first these provinces declared their independence of Spain, in the early part of the present century, they were sixteen in number. But two amongst them have subsequently become separated from the federal body and assumed the position of independent states. These are Paraguay and Uruguay.

The state of **BUENOS AYRES**, which forms the most important member of the Argentine Confederacy, has an area of above 500,000 square miles. It forms the south-eastern division of the La Plata territory, extending from the estuary of the Rio de la Plata along the Atlantic coast as far as the river Negro, on the border of Patagonia.

The whole territory of the Buenos Ayres is stated to have a population of 350,000. The city of that name includes considerably more than half of the number.

Buenos Ayres (population, 180,000) is the most important commercial city in this portion of South America, the nominal head of the Argentine Confederacy, and the chief outport for the produce of the La Plata territory. It stands on the south bank of the Rio de la Plata or river Plate, towards the upper portion of the estuary.

The city of Buenos Ayres constitutes the capital of the Argentine Confederacy. **Parana**, a small place on the river of that name, 250 miles above the estuary of the Rio de la Plata, was for a time the seat of the federal government.

The other towns within the Argentine Confederation are of small size and of little importance. Among the most considerable of them are **Cordova, San Juan, and Entre Rios**.

PARAGUAY.

PARAGUAY is to the north-east of the Argentine Republic. It is enclosed between the great rivers Parana and Paraguay, upon either hand, and is bounded on the north and east by Brazil.

Paraguay has now an area of only 57,000 square miles, and a population of scarcely 250,000.¹ Its most characteristic article of produce is the yerba-maté or Paraguay tea, which is extensively used in South America for a purpose similar to the proper tea-plant of the Old World. The chief town of Paraguay is **Assumption** (population, 15,000), on the river Paraguay.

URUGUAY.

URUGUAY is the south-eastern portion of the La Plata territory. The river Uruguay forms its western border. On the south it is bounded by the Río de la Plata, on the east by the Atlantic Ocean, and on the north by Brazil.

Uruguay includes 73,000 square miles, and a population, according to the census of 1880, of 438,000. Its capital is **Montevideo** (population, 105,000), which stands on the north bank of the Río de la Plata, at the entrance of that estuary. Montevideo occupies a position admirably suited for maritime commerce, of which it formerly enjoyed a large share. But long-continued warfare between Uruguay and the neighbouring state of Buenos Ayres materially injured its trade, which is now, however, reviving. The chief articles of export are cattle, hides, and tallow. Fray Bentos and Paysandu have important preserved-meat manufactories.

PATAGONIA.

The extreme southern portion of the American continent is called Patagonia — an extensive and comparatively barren tract of country which stretches southward from the river Negro to the Strait of Magellan.

A few thousand uncivilised Indians are the sole inhabitants of this region, with the exception of a small Welsh colony, established within recent years, on the river Chupat. By a recent (June 1881) arrangement between the Argentine and Chilian governments, the sovereignty over Patagonia is now definitely vested in the Argentine Confederation, while the narrow tract of country at the western base of the Patagonian Andes and along Magellan Straits up to Point Dungeness is to belong to Chili.

The **FALKLAND ISLANDS** are a possession of the British Crown. They consist of two principal islands (East and West Falkland), which are divided by a narrow strait.

These islands are situated in the midst of a stormy sea, and are capable of yielding little beyond oxen and horses, great numbers of which are found there in a wild state. The climate is not sufficiently genial for any considerable amount of agricultural produce. Whaling ships and other vessels passing round Cape Horn occasionally visit the port of *Stanley*, situated on the coast of East Falkland.

¹ Before the war of 1865-70 with Brazil, Uruguay, and the Argentine Republic, Paraguay had an area of 100,000 square miles, and a population of 1,500,000.

QUESTIONS ON CHILI, LA PLATA, &c.

1. How is Chili bounded on the east, west, and north?
2. Give some account of the natural features of Chili.
3. What productions of the mineral kingdom belong to Chili? What articles constitute its commercial produce?
4. Name the capital of Chili, also its chief seaport.
5. Where are Concepcion and Coquimbo?
6. Under what form of government is Chili? What language is spoken there? What religion is followed?
7. Where is the La Plata territory? How is it bounded?
8. Where is the tract of country known as the Gran Chaco? What natural features does it exhibit?
9. What three great rivers belong to La Plata? Into what estuary are their waters discharged?
10. In what does the wealth of La Plata chiefly consist?
11. What articles constitute the commercial produce of this region?
12. What town forms the present capital of the Argentine Confederation? On what river is it?
13. How many provinces are at present included within the Argentine Confederation? What three states, now independent, were formerly members of it?
14. Where is Paraguay? What two great rivers bound it on either side?
15. Name the capitals of Paraguay and Uruguay respectively.
16. What characteristic article of natural produce does Paraguay furnish?
17. Where are Buenos Ayres and Montevideo?
18. Where is Patagonia? By whom is the sovereignty over it claimed?
19. To whom do the Falkland Islands belong? What town do they contain?

AUSTRALIA.

AUSTRALIA¹ is within the southern hemisphere. It is the smallest of the continents, and is the only one of them that is situated wholly to the south of the equator.

BOUNDARIES.—Australia is bounded by the ocean on every side—by the Pacific Ocean on the *east*, the Indian Ocean on the *west* and *north-west*, by the Southern Ocean on the *south*. It is therefore an insular continent.

EXTENT.—In point of size Australia is not greatly inferior to Europe. It includes an *area* of 3,000,000 square miles,² which is more than three-fourths the size of Europe.

The greatest width, between Cape York on the north and Cape Wilson on the south, is 2000 miles; the greatest length, from Steep Point on the west to Cape Byron on the east, is about 2400 miles.

COASTS.—Australia is much more solid and unbroken in external contour than Europe—more so indeed than any of the other continents, excepting Africa and South America. The indentations which penetrate its coast-line do not affect in any way the general solidity of the whole mass of land.³

The north-eastern coast of Australia is skirted for about 1200 miles by the *Great Barrier Reef*, a chain of coral reefs extending from Torres Strait to 22° S. lat., at a distance of from 10 to 150 miles from the coast. The southern extremity of this vast reef (known as the *Swain Reefs*) is divided from the coast by the *Capricorn Channel*.

¹ Australia, "the Southern Land," from the Latin *australis*, south.

² Fifty times that of England and Wales.

³ The total length of the coast-line is estimated at 10,000 miles, or about 1 mile of coast to every 300 square miles of area.

1. **INLETS.**—The most considerable arms of the sea on the Australian coasts are—on the *north*, the Gulf of Carpentaria; on the *south*, St. Vincent Gulf and Spencer Gulf; on the *west*, Shark Bay.

2. **STRAITS.**—The two principal straits are—Torres Strait,¹ in the *north*, and Bass Strait,² in the *south*. Torres Strait divides Australia from New Guinea. Bass Strait intervenes between the Australian mainland and the neighbouring island of Tasmania.

3. **CAVES.**—The most important are—Cape York, which is the extreme north point of Australia; Cape Byron, the most easterly point; Cape Howe, in the south-east; Cape Wilson, the southernmost point; Cape Leeuwin, in the south-west; and Steep Point, the westernmost extremity.

ISLANDS.—Groote Eylandt and Wellesley Island, in the Gulf of Carpentaria; Bathurst and Melville Islands, off the north-west coast; Dampier Archipelago and Dirk Hartog Island, on the west coast; Kangaroo, King's Island, and Tasmania on the south; and Great Sandy Island on the east.

NATURAL FEATURES.—Australia exhibits tracts of high ground in the neighbourhood of the coast, and vast plains, of trifling elevation, towards the interior. The high grounds are most connected, and of the most considerable altitude, upon the eastern side of the continent, where they form a continuous cordillera, or chain of heights, stretching along the shores of the Pacific Ocean, at a distance of fifty or sixty miles inland. One portion of this prolonged range of high ground is known as the *Australian Alps*, another portion bears the name of the *Blue Mountains*, and a third is entitled the *Liverpool Range*.

1. The **Australian Alps** are in the extreme south-east of the continent, partly within Victoria, and partly within the adjacent colony of New South Wales. They reach upwards of 6000 feet in height, which is a greater altitude than that of any other mountains in Australia. At this moderate elevation, the Australian Alps are covered with perpetual snow. *Mount Kosciusko*, one of the highest summits, is upwards of 7000 feet.

2. The **Blue Mountains** are to the northward of the Australian Alps, and within New South Wales. They seldom exceed 3000 feet.

3. The **Liverpool Range** is still farther north. The high grounds continue in the same direction along the whole eastern side of the continent, and only terminate in Cape York, its northernmost extremity.

South Australia, which includes St. Vincent and Spencer Gulfs, contains some ranges of high ground in the neighbourhood of those inlets. These have the same general direction of north and south as the cordillera of the eastern coasts. Few of them exceed 3000 feet in height.

The western coasts of the Australian continent are backed by high grounds of moderate elevation, seldom exceeding 2000 feet. Part of these bear the name of the **Darling Range**. There are similar tracts of high ground in the neighbourhood of many parts of the north-western and northern coasts, but they nowhere exhibit the character of mountain-chains.

¹ Torres Strait is about 90 miles wide. Numerous islets and reefs render its navigation extremely difficult and dangerous.

² Bass Strait is about 120 miles wide, and

is limited on the east by Flinders Island, and on the west by King Island. The 40th parallel S. lat. passes through both of these islands.

From the inland base of the coast-range the country spreads out in vast plains towards the distant interior of the Australian continent. In many parts these plains exhibit almost perfect uniformity of level, so complete as to afford no outfall to the rivers. But this is not always the case; elsewhere the country is more diversified, and tracts of undulating ground, in many cases grassy and watered, are of frequent occurrence at considerable distances inland.

A large portion of interior Australia is yet unexplored,¹ but the continent has been repeatedly crossed within recent years, and the discoveries made have strikingly falsified the notions that had previously been entertained with regard to its condition. Instead of an arid and impassable wilderness, the Australian interior appears to consist of vast plains, moderately grassed and watered—in some places abundantly so—and capable in general of being used for pastoral purposes. There are, no doubt, exceptions to this general character, as in the case of the regions traversed by Captain Stuart and others, which the explorers found an arid wilderness, devoid alike of water and vegetation, and the surface of the ground diversified only by shifting sandhills and saltmarshes.

RIVERS.—Australia has no rivers which can compare with the rivers of other continents in volume of water, and consequent capability of navigation. Yet large portions of it are at least moderately watered, in sufficient measure to furnish the needful amount of irrigation to the soil, and its longer streams have been recently proved capable of ascent by steamers of light draught for considerable distances inland, during the season of flood.

1. The most considerable river of Australia is the *Murray*, which rises in the Australian Alps, and flows into the Southern Ocean at Encounter Bay. The Murray is 1200 miles long, and waters an area of 200,000 square miles. Within this extensive river-basin are included the courses of the *Murrumbidgee*, *Lachlan*, and *Darling*, which are tributaries of the Murray.

The Murray is navigable for steamers to within 150 miles of its source. The Murrumbidgee has a total length of 1350 miles, 500 of which are navigable. The Darling is about 1160 miles long, and is navigable during the winter months.

2. There are numerous rivers on the eastern side of Australia, between the coast-chain of mountains and the ocean. Among the principal of them (beginning at Moreton Bay and proceeding southward) are the *Brisbane*, *Clarence*, *Macleay*, *Hunter*, *Hawkesbury*, and *Shoalhaven*. North of Moreton Bay the chief rivers are the *Fitzroy* and the *Burdekin*.

¹ The chief events in the progress of discovery in Australia are:—(1.) *Leichardt*, in 1844-45, set out from Sydney, and ultimately reached Port Essington, discovering on his way the Fitzroy, Burdekin, Mitchell, and Gilbert rivers. (2.) *Burke and Wills*, in 1860-61, crossed the continent from Melbourne to the Gulf of Carpentaria; on the return journey both perished. (3.) *Stuart*, in 1862, left Adelaide, and reached the shores of Van Diemen's Gulf, his route being subsequently adopted for the Overland Telegraph. (4.) *Forrest*, in 1870, proceeded from Perth to South Australia. In the same year *Giles* discovered the dry saltmarsh of Lake Amadeus. (5.) *Warburton* crossed the country west of the Overland Telegraph, reaching

Roeburne on the west coast in January 1873. (6.) *Forrest*, in 1875, crossed from Perth to the telegraph line. (7.) In the same year *Giles* crossed from Fowler Bay, near the head of the Great Australian Bight, to Perth. The following year, having traced the headwaters of the Murchison and Ashburton rivers, he crossed the desert to Rawlinson range. (8.) In 1879 the *Queenslander Trans-Continental Expedition* made a flying survey between Blackhall and Port Darwin. (9.) In the same year Forrest travelled from Perth to King Sound. Having explored the Fitzroy river, he pushed north, and with difficulty reached Port Darwin. Forrest estimated the Fitzroy basin to contain 5,000,000 acres of land suitable for pastoral purposes.

3. The rivers on the western side of the continent are inferior to those on its eastern coasts. The most important are the *Swan*, *Murchison*, *Gascoyne*, *Ashburton*, and the *Fitzroy*.

4. Upon the northern coasts of the Australian continent there are also numerous streams, but none of them come from any great distance inland, and their supply of water is chiefly dependent on the periodical rains. The *Victoria River*, on the north-western coast, is one of the most considerable. Of the rivers flowing into the Gulf of Carpentaria, the principal are the *Roper*, *Flinders*, and *Mitchell*.

* * The chief characteristic of the rivers of Australia is their liability to sudden and violent floods. They are for the most part mere surface-torrents, supplied by the rains. During seasons of drought they become speedily dried up under the intense heat of an Australian sun, or the stream is converted into a chain of ponds. With the recurrence of the rainy season, vast floods of water are poured through their beds, and huge trunks of trees, masses of rock, and other *débris*, hurried down by the stream, bear witness to the violence of the torrent. The Murray and its chief tributaries are perennial streams, but their volume of water undergoes great variation, according to the season of drought or rain.

LAKES.—*Lake Alexandrina*, through which the Murray passes immediately above its mouth, is the largest lake in Australia. It is a shallow expanse of water, difficult to navigate. The other lakes that are marked on the maps of Australia are only saltmarshes, or mere surface ponds, with dry beds during the larger portion of the year. Of these the most extensive are lakes *Eyre*, *Torrens*, and *Gairdner*, north of Spencer Gulf, and the recently-discovered *Lake Amadeus*, in the interior.

CLIMATE.—The prevailing characteristic of the Australian climate is intense aridity. The air is almost uniformly warm, dry, and healthy.¹ In many districts, however, especially at a distance from the coast, the temperature undergoes frequent and sudden changes.

Nearly one-half of Australia falls within the Torrid Zone. Even its highest latitudes are not more distant from the equator than the shores of Spain, southern Italy, Greece, and Asia Minor, upon the opposite side of the globe. The whole of Australia, therefore, experiences a high temperature, but, from its situation in the southern hemisphere, the amount of heat diminishes from north to south, instead of (as in the case of the northern continents) from south to north. The southernmost parts of Australia are the coolest, and the heat increases with every successive parallel in a northward direction.

The most populated portions of the Australian continent—that is, the settled districts of Victoria, New South Wales, South Australia, and Western Australia—have a climate which bears much resemblance, in so far as temperature is concerned, to that of the extreme south of Europe. The colony of Queensland, which is nearer the Tropic of Capricorn, is, of course, hotter; and the northern coasts, which are within the Torrid Zone, are hotter still. Intensely hot winds, generated in the arid desert of the interior, are sometimes felt within the coast-districts, and produce effects which, for a brief season, resemble those that result from the simoom of the African wilderness.

Rainfall.—The rains in Australia fall with great violence at particular seasons, which (within the settled districts) are coincident with the winter of the southern hemisphere, that is, May to August. During nine months of the year rain seldom occurs. It is supposed that the rainfall is greater on the eastern than on the western side of the continent.

¹ The mean death-rate in the Australian colonies in 1878 was 14.94. In England and Wales the average rate is about 22.3.

NATURAL PRODUCTIONS.—The mineral wealth of Australia equals that of any of the other continents ; its animal and vegetable productions are inferior, and differ in many respects from those of the rest of the globe.

1. Metals and Minerals.—Australia has been proved, within recent years, to abound in mineral resources. The goldfields of Victoria rival those of California in abundance of produce, and the copper ore of South Australia is of unsurpassed richness.

Gold is found in Australia along the inland base of the Australian Alps, and at various localities within the basin of the upper Murray and its tributary streams, as well as in other parts of the province of Victoria. Some of the goldfields are within New South Wales, but those of Victoria are of far greater value. Other metals—*iron, copper, lead, and tin*—occur in the settled portions of Australia. Coal is only found within New South Wales, Queensland, Victoria, and in the neighbouring island of Tasmania. Valuable tin mines are now worked in New South Wales and Queensland. There are rich deposits of iron ore in Tasmania.

2. Vegetation.—The native vegetation of Australia is altogether different from that of other parts of the globe. Australia is the only one of the continents that has no characteristic food-plants of its own—neither grains, fruits, nor esculent roots of any value. With scarcely an exception, the plants that are indigenous to its soil are valueless as food. Many of its trees, however, yield valuable timber ; they belong chiefly to the orders known as gum-trees (*eucalypti*) and acacias.

All the grains and fruits that belong to southern Europe and similar regions of sub-tropical temperature flourish, however, in the Australian soil. The *vine, orange, fig, olive, peach*, and numberless fruits of like description, grow in unsurpassed luxuriance. Both *wheat and maize* return abundant crops.

3. Zoology.—(1.) The native animals of Australia present no analogy to those of other regions. The largest of its mammalia is the kangaroo, which belongs to an order (the *marsupial*) that is scarcely represented elsewhere.¹ Two-thirds of the native animals of Australia are either *kangaroos* or *opossums*. There are numerous varieties of the kangaroo, differing greatly in size from one another. The most formidable among the carnivorous animals of Australia is the native dog or *dingo*, which is fast diminishing in numbers, and will probably soon become extinct.

The animals native to Australia, like the plants indigenous to that region, are of no obvious service to man. At least they include none which can supply the same uses to man as the domesticated cattle of other regions—no oxen, sheep, goat, horse, deer, camel, or elephant. All the domestic quadrupeds of Europe, however, have been introduced into Australia. Sheep and oxen² are now reared there in almost countless numbers. Herds of wild oxen, descended from strayed members of the settlers' stock, are occasionally met with in the distant interior.

(2.) The native birds of Australia, and indeed all the members of the animal world, are unlike those of other lands. The *emu* (or Australian ostrich) is found within the arid plains of the interior. *Snakes* and other

¹ The distinguishing characteristic of this tribe of animals is the pouch under the neck, in which they carry their young. Opossums are found in America (see page 328). With this exception, the *marsupial* order of animals is confined to the Australian division of the globe (Tasmania included), with New

Guinea and a few of the neighbouring islands. The kangaroo is found only in Australia, New Guinea, and the adjacent Aru Islands.

² In 1878 there were over 61,000,000 sheep in Australia, nearly 6,500,000 cattle, and upwards of 800,000 horses.

members of the reptile kind are not generally numerous, nor is the general aridity of the Australian soil favourable to their development. They are more numerous within or near the tropical portions of the continent than in the settled provinces of the south and south-east. "In the insect world Australia occupies a foremost position, whether as regards number, peculiarity, or activity, the latter quality being conspicuous in the *mosquito*."

INHABITANTS.—The chief part of the present inhabitants of Australia are of British descent. The colonisation of this distant region by Great Britain commenced nearly a century since (in 1788), and has progressed with greatly accelerated speed since the discovery of its goldfields in 1851. There are now 2,750,000 British subjects in the settled provinces of Australia, speaking the English language, and following the ordinary usages, in all essential respects, of the Anglo-Saxon race. A few settlers from other European lands, chiefly Germans, are intermingled with the British population.

The aboriginal natives of Australia are among the most degraded members of the human race. They are few in number, and are rapidly diminishing. They are now, indeed, seldom seen in the neighbourhood of the towns. The scattered tribes that wander over the vast interior obtain a scanty subsistence from such means as the forests or riverbeds of their native land afford. A few roots and berries, with shell-fish, insects, grubs, and other objects repulsive to civilised tastes, are the sole native resources of the Australian savage in this respect. The aborigines of Australia belong to what ethnologists distinguish as the Papuan (or Austral-Negro) race. Their skins are of dark colour—almost black, and their stature below the average of Europeans.

QUESTIONS ON AUSTRALIA.

1. In what particular, as to situation, is Australia distinguished from each of the other continents?
2. By what oceans is Australia bounded on the east, west, and south?
3. State the area of Australia.
4. Name the four principal inlets, straits, and capes of Australia.
5. Which portion of the coasts of Australia exhibits the most continuous chain of high grounds? How are the different parts of this cordillera named?
6. Point on the map to the Australian Alps. What height do they reach?
7. In what other parts of the Australian continent (besides the eastern coast) do ranges of high ground occur?
8. What is the general character of the interior regions of the Australian continent, so far as they are yet known?
9. Name the most considerable among the rivers of Australia, and trace out its course upon the map. In what mountains does it rise?
10. Name some of the rivers on the eastern, western, and north-western coasts of Australia.
11. What is the chief characteristic of the Australian rivers?
12. Name the largest lake of Australia, and point it out upon the map.
13. What is the prevailing characteristic of the climate of Australia? With what countries of Europe may the settled portions of Australia be compared, in regard to temperature?
14. Say what you know concerning the mineral productions of Australia. In which parts of it is gold found? In which copper? In which coal?
15. Give some particulars concerning the native vegetation of the Australian continent.
16. To what order of mammalia do the greater number of the animals of Australia belong? In what other part of the world are members of this order found?
17. Name some of the quadrupeds, among the domesticated animals of other regions, that are absent from the native zoology of Australia.
18. To what race and nation does the chief part of the present population of Australia belong?
19. Say what you know concerning the native population of this division of the globe.

THE AUSTRALIAN COLONIES.

The settled portions of Australia constitute six colonies, each of them under the rule of a governor appointed by the British Crown. Five of these colonies are on the Australian mainland—namely, New South Wales, Queensland, Victoria, South Australia, and Western Australia. One of them—Tasmania—consists of the island of that name. The governor of New South Wales—the earliest settled of the colonies—ranks as Governor-General of the entire group.

1. **NEW SOUTH WALES**¹ occupies part of the east coast of Australia, and stretches inland for a distance of nearly 600 miles. It is bounded on the *north* by Queensland, on the *west* by South Australia, on the *south* by Victoria, and on the *east* by the Pacific. It includes an area of 323,000 square miles,² and has a population estimated on June 30, 1880, at 750,000.

(1.) The Blue Mountains, the Liverpool Range, and the northerly portion of the Australian Alps³ fall within New South Wales. The rivers Shoalhaven, Hawkesbury, Hunter, Macleay, and Clarence belong to its seaward division. The Macquarie river, together with the Murrumbidgee, Lachlan, Darling, and other tributaries of the Murray, water its inland plains. The river Murray divides New South Wales from Victoria.⁴

(2.) The chief produce of New South Wales is *wool*,⁵ which is exported to England. Vast flocks of sheep,⁶ and also numerous cattle, are reared on the pasture-grounds of the interior. Sheep and cattle farming are the chief pursuits, but agriculture is now well attended to, there being, in 1880, over 600,000 acres under cultivation, while upwards of 17,000,000 were enclosed but not as yet tilled. The principal objects of cultivation are *wheat*, *maize*, and other grains. *Sugar*, *tobacco*, *arrowroot*, and *wine* are also produced.

The goldfields of New South Wales yield a much less return than those of the neighbouring colony; but it was in this province, within the valley of the Macquarie river, that gold was first found in Australia, in 1851. In 1879 the total yield of *gold* was valued at £399,000. *Silver*, *lead*, *tin*, *copper*, *iron*, and *coal* are also found. In 1879, 1,500,000 tons of coal were raised.

(3.) The government is vested in a governor, representing the Crown, and a parliament of two houses. *Revenue* (1879), £4,475,000; *Expenditure*, £5,839,000; *Public Debt*, £14,937,000, of which £11,000,000 were spent in constructing railways.⁷

(4.) The colony is divided into 13 pastoral districts, and also into 118 counties, 20 of which (locally known as the *old counties*) are on or near the coast, the rest (the *new counties*) being in the interior.

(5.) **Sydney**, which ranks as the Australian metropolis, is the oldest settlement in this region. It was founded in 1788. Sydney stands on the southern shore of Port Jackson, one of the most magnificent of natural harbours, and is a highly flourishing seat of commerce, with 200,000 inhabitants.⁸ **Newcastle** is at the mouth of the river Hunter, in proximity to the coalfield of New South Wales. **Bathurst**, on the river Macquarie, to the west of the Blue Mountains, is the oldest of the settlements in the interior.⁹

¹ New South Wales is the oldest colony in Australia, and originated in a penal settlement made at Sydney Cove (Port Jackson) in 1788.

² *i.e.*, Five and a half times that of England and Wales. The total length of the coast-line is about 800 miles.

³ Highest point, *Mount Kosciuszko*, 7308 feet.

⁴ The dividing line from South Australia is formed by the 141st meridian, and from Queensland by the 26th parallel S. lat.

⁵ In 1879, 64,059,824 lbs. of wool, valued at £3,800,542, were exported.

⁶ In 1880 there were in the colony 29,000,000 sheep, and 2,900,000 cattle.

⁷ On January 1, 1880, there were 734½ miles of railway open.

⁸ *i.e.*, including the suburbs.

⁹ Norfolk Island, situated 900 miles to the eastward of the Australian continent, is attached to the government of New South Wales.

2. **QUEENSLAND**¹ comprises the north-eastern portion of Australia, and is bounded on the *north* by the Gulf of Carpentaria and Torres Strait, on the *west* by South Australia, on the *south* by New South Wales, and on the *east* by the Pacific Ocean.

(1.) Total area, 669,520 square miles; length, from north to south, 1300 miles; breadth, 800 miles; coast-line, about 2500 miles; *population* (1880) 217,000.

(2.) A range of mountains runs nearly parallel to the coast from York peninsula to the neighbourhood of Brisbane.² The principal rivers are the *Brisbane*, which falls into Moreton Bay; and, farther north, the *Fitzroy* and the *Burdekin*, flowing into the Pacific; and the *Mitchell*, *Gilbert*, *Norman*, and *Flinders*, flowing into the Gulf of Carpentaria. In the interior are the *Barcoo* or *Victoria* river, which flows towards Cooper Creek, and the *Condamine* and several other tributaries of the Darling. There are several hundred islands along the coast. At a distance of from 10 to 150 miles from the coast is the vast natural breakwater of the *Great Barrier Reef*.

(3.) The natural productions of Queensland comprise *gold*, *tin*, *copper*, and *coal*, but the colony is chiefly famous for its *sheep* and *cattle*; and the principal articles of export are *wool* and *preserved meat*. The soil, in many places, presents "the most favourable conditions for the successful cultivation of sugar,³ coffee, rice, and other tropical productions."

(4.) Queensland is divided into 12 large districts, in which there were, in 1879, 165 towns, of which 18 were municipalities. The capital of the colony and seat of government is *Brisbane* (*population*, 35,000), on the river *Brisbane*, about 25 miles from its mouth. The other chief towns are *Rockhampton*, an important port on *Fitzroy* river, *Maryborough*, and *Ipswich*.

3. **VICTORIA** is divided from New South Wales by the river *Murray*. It is bounded by New South Wales on the north and north-east, and by South Australia on its western side. On the south and south-east it has the channel of Bass Strait and the adjoining ocean. Victoria has an area of about 88,000 square miles (one thirty-fourth part of the entire continent),⁴ and a *population* (1880) of about 900,000.⁵

(1.) A chain of mountains, known as the *Dividing Range*, extends across the colony from east to west at a distance of from 60 to 70 miles from the coast. The eastern part of this range is known as the *Australian Alps*, the western as the *Grampians*. There are about 15 peaks above 5000 feet in height, the highest being *Bogong*, 6508 feet. All the chief rivers of Victoria rise in the central range, those to the north flowing into the *Murray*, and those to the south into the sea. The *Murray* forms, for 670 miles, the northern frontier of Victoria. Of its numerous tributaries within the colony the principal are the *Ovens*, *Goulburn*, and *Loddon*. The *Yarra-Yarra* flows into Port Philip. The extreme eastern part of Victoria is drained by the *Snowy River*, and the extreme west by the *Glenelg*. Of the numerous inlets along the coast,⁶ the largest and most important is *Port Philip Bay* (40 miles long).

(2.) Sheep-farming, mining, and agriculture are the chief industries.⁷ The staple articles of export are *wool*⁸ and *gold*.⁹ *Wheat*, *oats*, and *barley* are extensively cultivated, and a considerable quantity of *wine*, of good quality, is now produced. There are also 2500 manufactories in the colony. In 1880 nearly 1200 miles of railway were open or in course of construction.

¹ Queensland—then known as the Moreton Bay district—formed part of New South Wales until 1858, when it was formed into a distinct colony.

² Known as the *Coast Range*. Highest point, *Mount Dalrymple*, 4250 feet.

³ In 1879-80, 12,000 tons of sugar were exported.

⁴ About one and a half times larger than England and Wales.

⁵ The population in 1836 only amounted to 2361.

⁶ About 600 miles long.

⁷ In 1879 there were nearly 9,400,000 sheep in the colony.

⁸ In 1879, 95,628,281 lbs. of wool, valued at £5,209,634, were exported.

⁹ The total quantity of gold raised since its discovery in 1851 is estimated at 48,719,930 ozs., valued at £194,879,722.

(3.) The government is the same as in the other colonies, by a governor appointed by the Home Government, an executive council, and two legislative houses. The colony is divided into 4 districts and 37 counties. The principal towns are Melbourne, Ballarat, and Geelong. Melbourne, the capital of Victoria, stands near the head of Port Philip, on the small river Yarra, which runs into that arm of the sea. It has grown with surprising rapidity into a flourishing commercial city, with 256,000 inhabitants. Ballarat (population, 47,000), the next city in importance to Melbourne, is the leading goldfield town of Victoria. Geelong, the third place in the province, is at the south-western corner of Port Philip, about 45 miles south-west of Melbourne. The district of Portland Bay, to the westward of Port Philip, has several flourishing settlements on its shores. New and thriving towns have sprung up in every part of the province of Victoria, which is rapidly advancing in population and wealth.

(4.) Victoria was made a distinct colony in 1851. It had previously formed part of New South Wales, and was known as the Port Philip district, from the harbour of that name, on its southern coast-line. Melbourne, its chief city, was not founded until 1837. Though of so recent an origin, Victoria is the most populous, and is commercially the most important, of the Australian colonies. This is owing to the unsurpassed richness of its goldfields, which have rapidly attracted population thither.

4. **SOUTH AUSTRALIA** comprises the central portion of the continent, and is bounded on the north by the Arafura Sea and the Gulf of Carpentaria; on the south by the Southern Ocean; on the east by Queensland, New South Wales, and Victoria; and on the west by West Australia. The total area is upwards of 900,000 square miles,¹ of which about 250,000 square miles are more or less occupied, mainly for pastoral purposes. The population, according to the recent census,² was 277,000.³

(1.) South Australia proper only includes the territory south of the 26th parallel, between the 129th and 121st meridians. The northern territory, annexed in 1863, extends north of 26° S. lat., between the 129th and 138th meridian. Of the former, comprising an area of 380,000 square miles, a large proportion has been occupied; of the latter, although well adapted for pastoral purposes, and with a soil and climate suitable for the cultivation of cotton and other tropical products, but little has as yet been utilised.

(2.) The chief natural features are (1), in South Australia, a range of mountains extending from Cape Jervia, along the eastern side of the Gulf of St. Vincent, north to the great salt lakes.⁴ A minor range traverses the peninsula of Port Lincoln.⁵ The coast is indented by two large inlets, the *Gulf of St. Vincent* and *Spencer Gulf*. At the mouth of the latter is *Kangaroo Island*. The *Murray* empties itself into *Lake Alexandrina*, which communicates with the sea by a narrow channel. North of Spencer Gulf are the vast salt lakes of *Torrens* and *Eyre*, and north of the Gawler Range is *Lake Gairdner*. (2) In the northern territory are several navigable rivers, of which the principal are the *Roper*, *Adelaide*, *Daly*, and *Victoria*. On the coast are *Melville* and *Bathurst* islands, off Van Diemen's Gulf, and *Groote Eylandt*, in the Gulf of Carpentaria.

(3.) The chief productions are *wool*, *corn*, *copper*, and *wine*. This colony has more of agricultural industry than any of the other colonies on the Australian mainland. Its *wheat* and other farm produce are of the highest quality, and are largely exported to the neighbouring colonies. The mineral wealth of the colony consists chiefly of *copper*,⁶ but *iron*, *gold*, *silver*, and *bismuth* also exist.

¹ About fifteen times the area of England and Wales.

² April 3, 1887.

³ Exclusive of about 4000 aborigines.

⁴ The Flinders Range. Highest point, Mount Bryan, 3012 feet.

⁵ The Gawler Range.

⁶ The famous *Burra-Burra* copper mine, about 90 miles north-east of Adelaide, was discovered in 1845. The history of this mine is indeed the "history of the commercial progress of South Australia."

(4.) The settled portions of South Australia are divided into counties, hundreds, and districts. The government is administered by a governor and two houses of parliament. The chief towns are the following :—Adelaide, the chief city of South Australia, lies a few miles from the eastern shore of St. Vincent Gulf, and has about 85,000 inhabitants. The mining district of **BURRA-BURRA**, or Koorunga, is to the northward of Adelaide, about 90 miles distant. **Port Lincoln** is at the western entrance of Spencer Gulf. **Port Elliot** is at the mouth of the Murray. North-west of Adelaide, in the north of the York Peninsula, are the important copper-mining centres of **Walleroo** and **Moonta**.

(5.) In the northern territory the chief settlement is **Palmerston**,¹ on Port Darwin. **Southport** is an inland town 24 miles south of Palmerston. The settlement at Port Essington, on Coburg Peninsula, was abandoned in 1850.

5. **WEST AUSTRALIA**² (in so far as its settled portion is concerned)³ is limited to the south-western corner of the Australian continent, from the neighbourhood of Swan river, on the western coast, to that of King George Sound, on the southern coast-line. It is the least important of the Australian colonies, and, though established in 1829, has only about 28,000 inhabitants.

(1.) "The whole of the settled district is usually level, often undulating, but never mountainous. Excepting the spots cleared for cultivation, it may be described as one vast forest." There are three well-defined ranges of hills, the most westerly of which, the *Darling Range*, lies near the coast. The principal rivers are the *Swan*, *Murchison*, *Gascoigne*, *Ashburton*, and *Fortescue*, of which the Swan only is navigable to any extent.

(2.) The productions of West Australia comprise *wheat*, *wine*, *sandal-wood*, *jarrah* (or West Australian mahogany). *Copper*, *lead*, and *iron ore* are also found, but not much worked. Sheep-farming is at present the chief pursuit of the settlers, and *wool* forms the largest item of export.

(3.) The government is administered by a governor, who is assisted by an executive and legislative councils. The colony is divided into thirteen districts. The chief towns are Perth, Freemantle, and Albany. **Perth** (*population*, 6000), the capital of Western Australia, stands on the banks of the river Swan, and is now (1881) connected by rail with Freemantle, its port, at the mouth of that stream. **Albany**, on King George Sound, is the chief town on the southern coast-line of the province, and is an important mail-packet station.

6. **TASMANIA** (or Van Diemen's Land, as it was, until recently, called) is an island lying to the south of the Australian continent, and divided from it by Bass Strait. It has an area of 24,000 square miles, which is nearly half the size of England.

(1.) Tasmania has a coast-line indented by numerous inlets, and a surface diversified by alternate hills and valleys.⁴ Its highest elevations reach 5000 feet above the sea. The two most important of its numerous rivers are the Derwent and the Tamar. The *Derwent* flows into the estuary of Storm

¹ The northern terminus of the "Overland Telegraph" from Port Augusta.

² Western Australia (formerly known as the Swan River Settlement) continued until 1868 to be used as a convict settlement, but the transportation of criminals was then wisely abandoned.

³ Otherwise it includes the whole of the continent west of 129° E. long., embracing an area of about 975,000 square miles, or about sixteen times the size of England and Wales.

⁴ Tasmania has been described as a "beautiful, well-watered island, rich in

harbours and inlets, traversed by high mountain-chains, full of crags, glens, ravines of commanding appearance. Everywhere there are good anchorages and many excellent harbours. Altogether the coast offers the most charming scenery, being for the most part bold and rocky. The interior especially is delightful, and here are united, so to speak, the climate of Italy, the beauty of the Apennines, and the fertility of England. Mountain and valley, hill and vale, crowned with high forests, and rich pasture-grounds in the plains, afford the most pleasing variety."

Bay, on the south-east coast. The *Tamar* flows into the Bass Strait, on the north side of the island.

(2.) The climate of Tasmania is cooler and also more humid than that of the Australian continent, bearing near resemblance to that of the southern coasts of England. Its vegetable produce bears evidence of this. The fruits and vegetables of the English orchard and garden, the apple, gooseberry, and common currant, for which the climate of the Australian mainland is too heated and dry, flourish in Tasmania. The fields and hedgerows remind the English settler of his native land. The indigenous plants and animals are the same as those of the neighbouring continent. *Coal* is found in Tasmania. *Iron, copper, lead*, and other metals also occur.

(3.) According to the recent (1881) census, the population of Tasmania is 116,000. Its commercial produce consists principally of *wool*. Excellent *wheat* is grown, and the climate is eminently favourable to agricultural operations.

(4.) Tasmania is divided for administrative purposes into 18 counties. The governor is assisted by a legislative council and a house of assembly. The chief towns are Hobart-Town and Launceston. Hobart-Town,¹ the capital of Tasmania, is on the river Derwent, a few miles above its entrance into Storm Bay. It was founded in 1804, and has about 25,000 inhabitants. Launceston, the second city on the island, is on the river Tamar, 50 miles above its entrance into Bass Strait. Georgetown is a watering-place at the mouth of the Tamar.

QUESTIONS ON THE AUSTRALIAN COLONIES.

1. Of what number do the Australian colonies of Britain consist?
2. Name the mountains, and also the principal rivers, that are within New South Wales.
3. What article constitutes the chief commercial produce of New South Wales? To what country is this exported?
4. Name the chief city of New South Wales. In what year was it founded? Upon what estuary does it stand?
5. In what part of New South Wales is Newcastle and Bathurst situated?
6. What name is given to the colony that lies immediately to the northward of New South Wales? Describe its chief physical features. What town forms its capital?
7. Where is Moreton Bay? What river falls into it?
8. Describe the boundaries of Victoria, pointing to them on the map.
9. By what name was the province of Victoria known prior to 1850? Whence was this name derived?
10. For what article of natural produce is Victoria remarkable? In what year was this discovered?
11. Describe briefly the capital of Victoria.
12. Where are Geelong, Castlemaine, and Portland Bay?
13. What are the present boundaries of South Australia? What two gulfs are within its coast-line?
14. Name the chief town of South Australia.
15. For what articles of produce is South Australia chiefly noted?
16. Where is the colony of Western Australia? What river falls into the sea on its western coast-line? What sound forms part of its southern coast?
17. Name the capital and the chief port of Western Australia.
18. For what purpose was the colony of Western Australia employed by the home government of Britain until 1868?
19. Where is Tasmania? By what name was it formerly called? What strait divides it from the Australian continent?
20. What kind of surface has Tasmania? Name its two chief rivers.
21. In what respect does the climate of Tasmania differ from that of the Australian mainland?
22. What productions of the mineral kingdom are found in Tasmania? In what does its commercial produce principally consist?
23. Name the capital of Tasmania, and point to its place on the map. Also the second town on the island. Say on what river each of them stands.

¹ From January 1, 1881, the name is to be Hobart, instead of Hobart-Town.

POLYNESIA.

POLYNESIA embraces the vast multitude of islands that are scattered through the Pacific Ocean. The most northwardly of these is the group of the Sandwich Islands, which are nearly adjacent to the Tropic of Cancer. Upon the opposite side of the equator, the most southwardly members of Polynesia reach beyond the 50th parallel, and include the islands of the New Zealand group. In the direction of east and west, the most distant members of this insular region are a hundred and twenty degrees, or a third of the earth's circumference, apart.

1. **NEW ZEALAND**¹ consists of an extensive group of islands, situated to the southward of the equator,² and within the South Temperate Zone. It embraces two large islands, with a third of much smaller size. The two large islands are divided by Cook Strait, and are distinguished respectively as the North Island and the South Island. The South Island is divided from Stewart Island (as the third island of the group is named) by Foveaux Strait.

EXTENT.—The entire area of New Zealand is about 105,000 square miles,³ which is nearly twice the size of England and Wales.

NATURAL FEATURES.—High chains of mountains stretch through both the North and the South Islands of New Zealand, and reach above the line of perpetual snow. *Mount Egmont*, in the North Island, is 8270 feet in height. In the South Island, *Mount Cook* reaches 13,200 feet, and several other summits are above 10,000 feet. The mountains, especially in the South Island, lie nearer the western than the eastern coast. Extensive plains stretch in the latter direction between the mountain-base and the sea, and are, in many cases, well adapted for pastoral pursuits. Both rivers and lakes are numerous, and the land is throughout abundantly irrigated.

1. The principal rivers in the North Island are the *Waikato* (which drains *Lake Taupo*), the *Waikato* or Thames, and the *Wanganui*. In South Island the chief are the *Clarence*, *Avon*, *Waitaki*, and *Clutha*. The latter is the longest river in New Zealand, and receives numerous tributaries—three of them from the large lakes of *Hawea*, *Wanaka*, and *Wakatipu*.

2. Evidences of volcanic action are found in most parts of New Zealand. Several shocks of earthquake have been experienced, and there are volcanic lakes, with hot springs in their vicinity, in the interior of the North Island.

¹ New Zealand was discovered by Tasman, who visited it in 1642, and gave it the name of *Nova Zeelandia*. Captain Cook circumnavigated the islands in 1769-70, and took formal possession of them. The first settlement was made in 1839. In the following year, the first governor, Captain Hobson, arranged the Treaty of Waitangi, by which the native chiefs ceded the sovereignty of the island to Great Britain. The progress of the colony was greatly checked at various times

by wars with the natives, in 1843-47, 1860, 1863-64, and 1868-69.

² About 1200 miles south-east of Australia.
³ North Island has an area of 44,736 square miles; South Island, 55,224; and Stewart Island, 1300. North Island is 500 miles long, with an extreme breadth of 250 miles; South Island is about 500 miles long and varies from 150 to 200 miles in width; Stewart Island is about 30 miles long and 25 miles broad.

CLIMATE.—The climate of New Zealand is temperate and healthy, presenting no material difference from that of England, excepting in a somewhat greater humidity of the air, and in the frequent occurrence of high winds. Its perfectly insular position fully accounts for this.

PRODUCTIONS.—The indigenous vegetation of New Zealand includes several kinds of valuable timber (chiefly from trees of the pine tribe), but, like that of Australia, though perhaps in a less degree, is deficient in food-plants. New Zealand has neither native grains nor fruits. The taro and the sweet potato are cultivated as their chief articles of diet by the natives. The native flax (*phormium tenax*) is capable of furnishing a valuable cordage.

1. Animal life is deficient to an extraordinary degree. The hog was the largest quadruped found in New Zealand by the first settlers. The dog, a few rats and mice, and the hog, make up the sum total of the land animals of this extensive region. There are no marsupials.

2. But the grains, fruits, vegetables, and domestic cattle of Britain thrive in the plains of New Zealand, the outward aspect of which is becoming rapidly altered under the hands of the settlers. Sheep are reared in great numbers, especially in the province of Canterbury, and wool constitutes the chief article of export.

INHABITANTS.—New Zealand was colonised by Britain in 1839, and has since remained an appanage of the British Crown. The population, according to the recent (1881) census, numbers 489,561. There is a considerable but decreasing native population—now reduced to fewer than 40,000—by far the greater number of whom are found on the North Island.

The native New Zealanders (who are called *Maories*) are a totally distinct race from the Australian savage, and possess vastly superior capabilities. They belong to the Malay family of nations, and are a well-formed, muscular race of people, with dark-brown complexions. They have been converted to Christianity; but their numbers are decreasing.

INDUSTRY.—The colonists are mostly engaged in sheep-farming, agriculture, mining, and trade.

1. Sheep-farming and cattle-rearing are carried on in all the provinces. In 1880 there were nearly 1000 runs in the colony, of a total area of 12,000,000 acres. The number of sheep has increased from 1,500,000 in 1858 to 13,000,000 in 1879. Altogether about 50,000,000 acres are fitted for pasturage, but the larger portion of this is now covered with forests.

2. Agriculture is making rapid progress, the total area under cultivation in 1879 being upwards of 800,000 acres. Of a total area of 67,000,000 acres, about 12,000,000 are fitted for agriculture. The chief objects of culture are *wheat* and *oats*. Barley, maize, and the ordinary European fruits and vegetables, are also grown.

3. Mining is an important branch of industry, the colony being rich in mineral resources. *Gold* was first discovered in 1857, and to March 31, 1880, the total exports amounted to 9,326,248 oz., valued at £36,471,588. Besides *gold*, *copper*, *silver*, *tin*, *iron*, and *coal* are found in various localities.

4. Commerce. The commerce of the colony in 1879 was twenty times greater than in 1859. The principal exports are *wool*, *gold*, *gum*, *corn* and *flour*, *preserved meat*, &c. In 1879 the total value of the exports was £5,743,000. In the same year the imports, consisting chiefly of British manufactures and colonial produce, were valued at £8,374,000. The principal ports are Auckland, Napier, and Wellington, in North Island; and Nelson,

Hokitika, and Dunedin in South Island. The trade and industry of the colony has made vast progress since the construction of a system of *railways*, at the expense of the government. Although only commenced in 1872, 1169 miles¹ were open for traffic on March 31, 1880.

DIVISIONS and TOWNS.—The colony of New Zealand was, until 1876, divided into nine provinces, four on the North and five on the South Island. In that year the county system was adopted, the colony being divided into 63 counties, of which 32 are in North Island, 30 in South Island, and 1 in Stewart Island. The provincial divisions are, however, temporarily continued as provincial districts. The names of these, with their principal towns, are as follow :—

On the North Island.		On the South Island.	
AUCKLAND, . .	Auckland.	NELSON, . .	Nelson.
WELLINGTON, .	Wellington.	MARLBOROUGH, .	Picton.
TARANAKI, . .	New Plymouth.	CANTERBURY, .	Christchurch.
HAWKE BAY,	Napier.	OTAGO, . .	Dunedin.
		WESTLAND, . .	Hokitika.

The town of **Wellington** (*population*, 16,000), situated on the east side of Cook Strait, upon the fine harbour of Port Nicholson, is the capital of the colony. **Auckland**, in the more northerly province of that name, was formerly the capital. **New Plymouth** is near the foot of Mount Egmont, on the west side of the island.

Nelson, the earliest formed of the settlements in the South Island, is on the shore of Cook Strait. The province of **Canterbury**, on the east coast of the South Island, includes Banks Peninsula, with an extensive pastoral region of the adjacent interior. **Otago**, farther to the south, on the same line of coast, includes extensive goldfields.

2. The smaller islands of Polynesia are scattered at distant and unequal intervals over the immense expanse of the Pacific Ocean, both to the north and south of the equator. They are most numerous between the 10th parallel of south latitude and the Tropic of Capricorn—that is, within the southern portion of the Torrid Zone.

NATURAL FEATURES.—The small islands of Polynesia are either of coral or of volcanic formation—the coral islands being by much the more numerous. They consist, with few exceptions, of low reefs, raised only a few feet above the level of the sea, and in many cases hardly on a higher level than that reached by the flood-tide. These islands owe their formation to the labours of the coral-worm, a species of zoophyte, which builds up to the level of the ocean the stony matter secreted by its own economy. When once the surface of the sea is reached, the coral spreads laterally, but the labours of this most wonderful of Nature's architects are no longer continued in a vertical direction, for water is necessary to its existence. It is found that the coral-worm cannot exist at greater depth than twenty or thirty fathoms, so that the numerous coral reefs of the Pacific and other seas are based upon submarine rocks.

¹ 361 miles in North Island and 808 in South Island.

1. The greater number of the coral islands are of semicircular shape, with a lagoon of still water enclosed between the inner curve of the semicircular and the reef which connects its extremities. A few of them form complete circles, with enclosed lagoons. One or more openings invariably occur in the reef, through which vessels can enter the lagoon, and ride in safety, while storms rage in the outer ocean.

2. The volcanic islands of Polynesia reach in many cases a height of several thousand feet above the ocean, and owe their elevation to the agency of subterranean fire. Many of them are surrounded by reefs of coral, which render the approach to their shores a task of danger.

CLIMATE.—The climate is one of the most delightful in the world. The heat of the Torrid Zone is here tempered by the influence of the vast surrounding ocean. The thermometer undergoes little variation throughout the year, and an almost uniform serenity of atmosphere prevails.

PRODUCTIONS.—This island-world possesses some productions that are peculiar to itself, chief amongst them the bread-fruit tree, the principal food of the native Polynesian race. The plantain or banana, cocoa-nut, yam, taro, sweet potato, and arrow-root are common to this part of the globe with the islands of the Indian seas. The sugar-cane, vine, orange, and other fruits of warm latitudes, all flourish. None of the larger members of the animal kingdom are found, with the exception of such domestic cattle as have been introduced by Europeans.

ISLANDS.—The smaller islands of Polynesia include the following groups, besides a vast number of scattered islets. The three first named of them are to the north, the others to the south, of the equator :—

Sandwich Islands, Caroline Islands, Ladrone (or Marianne) Islands.	Society Islands, Low Archipelago, Marquesas Islands, Cook (or Hervey) Islands.	Samoa (or Navigator) Islands, Friendly Islands, Fiji Islands.
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INHABITANTS.—In all the above groups, with the exception of the Fiji Islands, the inhabitants are of the Malay or brown race—the same race of mankind as that to which the New Zealanders belong. The inhabitants of the Fiji Islands are of the black or Austral-Negro race. The numbers of the Polynesian islanders have undergone a rapid decrease since the time when Europeans first became familiar with them, in the latter half of the 18th century.

The **Sandwich Islands**¹ are among the most considerable of the Polynesian groups, and their position—midway between the Old and New Worlds—is one of great commercial importance. They include eight principal islands, of which Hawaii (or Owhyhee) is the largest. Hawaii has an area of 4500 square miles—nearly three-fourths the size of Yorkshire. The population of the whole group numbers about 60,000.² The form of government is a limited monarchy—the native king holding the executive power; the legislative being vested in two chambers.

¹ The group was discovered by Captain Cook in 1778. Cook was killed in the following year by the natives of Hawaii. The islands were ceded to England in 1843, but restored the same year.

² The king of the Sandwich Islands is now (1881) visiting several foreign countries, for the purpose of inducing immigrants to settle in the islands, as the natives are rapidly decreasing in number.

1. These islands are of volcanic formation, and rise into high mountains in the interior. The highest points of Hawaii reach nearly 14,000 feet above the sea. The volcano of Kilauea, in the same island, is perpetually burning.¹

2. Considerable commercial intercourse is maintained between the Sandwich Islands and the western ports of the United States. The town of *Honolulu*, on the island of Oahu, is the most frequent resort of shipping.

The *Ladrone* or *Marianne Islands*² are claimed as a possession of the Spanish Crown, but only a few of them are inhabited. They are of volcanic formation, and very fertile.

The *Society Islands*³ are the most important among the smaller groups of Southern Polynesia (or the South Sea Islands, as they are often termed). The largest of them is Otaheite (or Tahiti), which has an area of 600 square miles, about the size of the county of Pembroke, in Wales. The highest point of Tahiti reaches 12,000 feet above the sea. All the members of this group are high, and of volcanic formation.

The Society Islands have a native population numbering about 20,000. They were formerly under the absolute rule of a native sovereign, but are now a French dependency.

The *Low Archipelago*, to the eastward of the Society group, embraces an immense multitude of coral islets and reefs, few of which are inhabited.

Pitcairn Island, a detached rock lying farther to the eastward, was the refuge of the mutineers of the *Bounty*, who settled on it in 1789. But the inhabitants of Pitcairn were removed to Norfolk Island in 1856; some of them, however, returned in 1859.

The *Marquesas Islands* are to the north-east of the Society group, and several degrees nearer the equator. They are among the mountainous islands of Polynesia. Their inhabitants are in the lowest condition of savage life, and practise cannibalism. The sovereignty over the Marquesas is claimed by France.

The *Samoa Islands*, in a more westerly part of Polynesia, are an important group. The largest of them is Savaii, the mountains on which reach upwards of 3000 feet. The inhabitants of the Samoa Islands have been converted to Christianity, and are under a native sovereign.

The *Friendly Islands*⁴ lie south-west from the Samoa group. They are for the most part low, and of coral formation, but several of them rise to a considerable height, and one (Tofoa) is an active volcano. The largest of the group is Tongataboo.

These islands are frequently visited for commercial purposes; cocoa-nuts, the bread-fruit, and yams are plentiful there. They are under a native sovereign.

¹ There are two other volcanoes in Hawaii — *Mouua Loa* (13,760 feet) and *Mouua Koa* (13,950 feet). The former was in eruption in February 1877.

² Discovered by Magellan in 1520.

³ Discovered by Fernandez in 1606. Visited by Wilks in 1767, and by Cook in 1769.

⁴ The Friendly Islands were so called by Cook, who visited them in 1773. They were discovered by Tasman in 1643.

The **Fiji Islands**¹ became in 1874 an integral portion of the British Empire, the sovereignty of the entire group having been accepted by Britain at the instance of the native chiefs.

1. They are a numerous group, comprising in all an area of about 8000 square miles, and a population estimated at 110,000, of whom about 2000 are whites. The two larger islands are called respectively *Viti-Levu* (Great Fiji) and *Vanua-Levu* (Great Land). It is on the smaller island of *Onalau*, situated eastward of the Great Fiji, that the port of *Levuka*, the capital of the group,² is situated.

2. The natives of the Fiji group were until recently addicted to cannibalism and other savage vices. They have, however, been reclaimed under missionary influence, and the islands are of growing importance in connection with the commerce of the Pacific. Maize, sugar, cotton, cocoa-nut, coffee, and arrowroot are now produced and exported.

3. The island of *Rotumah* was recently (1880) ceded by its chiefs to the British, and now forms a dependency of the colony of Fiji.

3. The islands that lie farther to the westward, like the Fiji Archipelago, are inhabited by native races belonging to the Austral-Negro or Papuan stock. These black tribes of Polynesia are throughout in the lowest condition of savage life. They practise warfare in the most barbarous manner, sacrifice human victims on the altars of their imaginary gods, and are almost uniformly cannibals. The islands included within this division of Polynesia are the following:—

New Hebrides. New Caledonia. Loyalty Islands. Solomon Islands.	Santa Cruz Islands. Louisade Archipelago. New Guinea. New Britain.	New Ireland. New Hanover. Admiralty Islands.
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New Caledonia is an island of considerable size, above 200 miles in length, and containing about 25,000 native inhabitants. It has been since 1854 a possession of France. The capital is *Noumea*, on the west coast.

The **Loyalty Islands**, to the east of New Caledonia, are composed of coral. They are visited for the sake of the sandal-wood which abounds on their shores.

Both the **New Hebrides**³ and the **Solomon Islands** are extensive but little-known groups. The island of Vanikoro (or Manicolo), the largest of the **Santa Cruz** group, was the scene of La Perouse's shipwreck in 1788.

New Guinea or **Papua** is of very large size. Its shores are in many parts lined by high mountains, but the interior is altogether unknown. The Dutch visit portions of its western coasts, as also do the Chinese and the Malays, who obtain thence tortoise-shell, edible birds' nests, tripang, and other articles. The beautiful birds-of-paradise are native to this region. This island has recently attracted some attention from the numerous expeditions from Australia in search of gold, and the probability of its being annexed by the British Government. In 1875 a New

¹ Discovered by Tasman, 1643.

² It is proposed to transfer the seat of government to Suva, on the island of Viti-Levu. Suva has an excellent harbour, and is

in every respect more suitable as capital than Levuka.

³ So called by Cook, who visited the group in 1774.

Guinea Colonisation Association was formed in London, but the Home Government declined to support the scheme, and subsequently intimated that no proposals for "the annexation of the island, or even the formation of a settlement on its coasts," would be entertained "unless the Australian colonies are willing to pay a portion of the cost that might be incurred." In 1878 the Colonist Expedition prospected the Goldie river for gold, but no payable fields were discovered, and the explorers returned to Port Moresby, having seen nothing to prove that New Guinea is a gold-producing country. It is probable, however, that the suitability of the island for the production of rice, sugar, and other tropical produce will, at no distant date, lead to its occupation as a British colony. In 1879 another expedition explored the coast districts, and in 1880 two Englishmen pushed inland for 250 miles from Port Moresby, returning by the Kemp Welch river. "The country, on account of its mountainous character, was very difficult to traverse, but little or no difficulty was experienced from the natives, though many of them had not before seen a white man. In some of the villages the natives had their houses in the trees, at a height of from fifty to sixty feet from the ground."

The **Louisiade Archipelago** are a densely-wooded group of islands off the south-eastern extremity of New Guinea. **New Britain** lies east of New Guinea, from which it is separated by Dampier Strait. The fertile and wooded island of **New Ireland** is only divided from New Britain by a narrow channel. North-west of New Ireland are the **Admiralty Islands**, a small but fertile group, inhabited by Malays.

QUESTIONS ON POLYNESIA.

1. Point upon the map to the region known as Polynesia. What is the meaning of this name?
2. Where is New Zealand? By what names are its two larger islands distinguished? What strait divides them?
3. Give some account of the physical features of New Zealand.
4. What kind of climate has New Zealand? In what particulars does it differ from that of England?
5. Mention some of the native productions of New Zealand.
6. By what nation has New Zealand been colonised? Since what date?
7. To what division of the human family do the native inhabitants of New Zealand belong? What is the present population?
8. What are the chief industries of the colonists? Give some particulars of each. Name the chief ports.
9. How is New Zealand divided? Name the capital, and point on the map to the following towns:—Wellington, Nelson, Christchurch, and New Plymouth.
10. Into what two classes (with reference to their physical formation) are the smaller islands of Polynesia divided?
11. By what agency are the coral islands formed?
12. Say what you know concerning the climate and natural productions of this region. What food-plant is especially characteristic of it?
13. Point to the Sandwich Islands, and name the largest of them.
14. Where are the Caroline Islands? The Ladrões? By what nation is the sovereignty over the latter claimed?
15. Point to the Society Islands, and name the largest of the group. To what nation do they now belong?
16. Point on the map to each of the following:—The Low Archipelago, Pitcairn Island, the Marquesas Islands, and the Samoa group. For what is Pitcairn Island noteworthy?
17. Point to the Friendly Islands, and name the largest island of the group.
18. To what stock of nations do the inhabitants of the more westwardly islands of the Pacific (from the Fiji Archipelago to New Guinea) belong?
19. Point on the map to the following:—the Fiji Islands, the New Hebrides, New Caledonia, the Loyalty Islands, and the Solomon Islands. State what you know of the colony of Fiji. What other island has been recently annexed to it? To what nation does New Caledonia belong?
20. Where is New Guinea? Name some of the islands that are adjacent to it on the eastward. What articles of commerce does this region furnish?

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* * Names of Tribes, Ancient Names, Geographical Terms, Treaties, Battlefields, &c., are in *italics*.

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